THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. XVII. Copyright, 1885, JAMES R. OSGOOD & Co., Boston, Mass. No. 477.

FEBRUARY 14, 1885.

Entered at the Post-Office at Boston as second-class matter.

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ONE of the most important events which has occurred in the building world within a week is the resignation of Mr. William P. Esterbrook of his office as Inspector of Buildings for the City of New York, which he has administered for something like five years with a faithfulness and courage that have made him a conspicuous figure before the public all over the country. Happily, we are not called upon yet to write an obituary notice of him, and need not enter into the particulars of that useful life which is yet to be completed, we hope, by many years of such service to his fellow-citizens as he knows how to give; but the occasion affords us an opportunity, which we are not sorry to take advantage of, for speaking of the office which Mr. Esterbrook's resignation has just left vacant in an impersonal way, and with more freedom than would be proper under other circumstances. Although all our readers know something of the regulations under which buildings are constructed in New York, few, except architects practising in that city, understand fully the vexatious restrictions often imposed by the present laws, which, although in the main well-considered and useful, were framed with special reference to a certain class of structures, and are singularly inelastic in their application to buildings of a different character. As a consequence of this, it is not too much to say that millions of dollars have been worse than thrown away in New York within the last ten years, with the full knowledge of the owner, architect, and building inspector, in piling up brick and mortar in places where they were not needed, and where they occupied, to no purpose, ground which had been paid for at a rate exceeding the cost even of the useless masonry piled upon it. Of course, this is not the fault of the inspector, who has simply to enforce the law as it stands, whether he approves its provisions or not, but it brings upon him an immense amount of direct and indirect pressure, under the mistaken idea that he can in some way exercise a discretion which the law expressly takes away from him. An inspector can, even under such circumstances, quietly shut his eyes to the violation of the law in particular cases; but it ought not to be necessary to say that this is the wrong way of exercising official clemency, and that the only method fair to all parties is to enforce strictly the provisions of the statute until they shall have been changed by legislative enactment. To this, the only true ideal of official integrity, Mr. Esterbrook's administration was consistently faithful. Understanding, quite as well as any one, the inconveniences of the existing laws, he labored longer and more earnestly than any one else to have them modified for the better, and it has been mainly owing to the jealousies and interested machinations of contractors and real-estate owners that the very provisions which the inspector urged for the purpose of relieving them from a useless burden have been repeatedly defeated. Wherever any discretion was allowed the inspector, it has been exercised, so far as we know, with uniform consideration for the best interest of all parties. Where the safety of the public was concerned, his decisions, although seldom, if ever, unreasonable, were enforced with a vigor for which the citizens of New York will long have reason to be thankful; but many architects can testify that in respect to other matters the practical wisdom and intelligence with which their plans were criticised was constantly accompanied with a courtesy in pointing out defects or oversights, and in suggesting the best and most economical way of making improvements, which won for him the respect and regard of those most capable of appreciating such qualities.

THE *Builder* gives an account of the prize scheme submitted for heating and ventilating the new German Parliament House at Berlin, which is interesting in many ways. The scheme proposed is very carefully studied, and is worthy, so far as we can judge from the brief description, to be associated with the admirable architecture of the building. Although the building is not a very large one, as such structures go, the characteristic German thoroughness with which the theoretical principles of perfect ventilation are applied may be inferred from the fact that each of the four inlet conduits which supply fresh air to the building is thirteen feet wide by seven feet high; while the two aspiration shafts which carry off foul air have together a sectional area of two hundred and fifteen square feet. Of course, the requisite quantity of air could be forced in and out through smaller channels, but only at a higher velocity, and with the production of objectionable currents, but these dimensions are intended to permit the velocity of the air in the conduits to be reduced to a maximum of two metres, or about six and one-half feet per second. This is only about four miles an hour, so that the unpleasant draughts from the registers, which give so much annoyance in many buildings otherwise well ventilated, will be entirely obviated. For warming the air hot water is used, in connection with a partial steam service. The building is for this purpose divided into four sections, and each of these again into two parts, each of which has its own independent boiler and system of pipes. In each section one boiler and pipe-system heats the offices, lavatories, libraries or reading-rooms and dwelling-rooms which may be included in that section, leaving the committee-rooms, anterooms and legislative-chambers to be warmed by separate boilers and pipes, which may be thrown out of service without interfering with the use of the rooms permanently occupied. The two sets of boilers and pipes in each section are, however, connected by valves, so that either boiler will warm the water in all the pipes of the section, if any accident should happen to the other.

THE air to be warmed is taken partly from the street front, and partly, by a curious fancy, from the basin of the fountain in the neighboring square. The fountain sends up a considerable stream of water and spray, and the movement of this, together with the cooling of the air by the evaporation of watery particles, has the effect of bringing down about the fountain a current of air from a considerable elevation, washed free of dust by the spray, and nearly saturated with moisture, which is easily abstracted for use in the building by means of openings around the walls of the basin. On reaching the building the air receives a preliminary warming by a coil of pipes in the inlet-channel, and is then filtered through porous cloths woven for the purpose, and further moistened by spray and evaporating surfaces. It then passes into a series of collecting chambers, one of which is situated under each room to be heated. Corresponding to each warm-air collecting-chamber is a cool-air chamber, separated from it by a narrow passage-way, called the mixing passage, and simple sliding doors admit air in various proportions from each chamber to the mixing passage, from which it is delivered into the room above. In warm weather ice-water is to be made to circulate through the hot-water coils, in the expectation that the air will be cooled by it to an agreeable temperature. The removal of foul air is effected through passages corresponding with the fresh-air conduits, and leading to two immense shafts at the end of the building. The current in these is to be maintained by coils of steam-pipe through which either live or exhaust steam from the main engine can be carried, assisted by fans. The cost of the apparatus is estimated at one hundred and eighteen thousand dollars, and this is probably a low price for it.

SOME of the questions which vex our builders and architects are very much like those that trouble their French fellows, and it is interesting to find that at least one of the superstitions current among contractors in this country prevails also on the other side of the ocean. A correspondent of *La Semaine des Constructeurs* recently asked advice on three points. In regard to the first, he explained that a contractor was directed by the written order of the architect of an important building to use iron tie-rods and anchors of a certain size. On reflection the contractor came to the conclusion that anchors of the specified size would not be strong enough, and he expressed this opinion in writing to the architect, notifying him that he would not be responsible for the consequences of using such inadequate materials. The architect replied, also in writing, that the ties were strong enough, and that he refused to accept the letter of the contractor. On preparing to excavate for the foundations of the same building, it was discovered that the ground was very soft, yielding, as shown by actual test, under a load of about fourteen hundred pounds to the square foot. The architect was applied to again, and ordered that a footing of concrete should be put in. As the intended building was to be of five stories, with walls eighty feet high, the contractor was, with reason, dissatisfied with this expedient for overcoming the difficulty, but, not venturing to disobey the architect without fortifying himself by good authority, he inquired, first, what a contractor was bound to do in case obedience to the positive orders of the architect seemed to him dangerous; and secondly, how he could, in carrying out such orders, relieve himself of responsibility for mishaps which might follow from obeying them.

TO the first of these questions the editor of *La Semaine* replies that the architect, as master of the work, is solely responsible for the consequences of following out, not only his plans and specifications, but his directions, and so long as the contractor conforms properly to these his responsibility is not engaged at all. In cases where unexpected difficulties come from the nature of the soil the French rule is to hold the builder and architect jointly and equally responsible for damage resulting from their neglect to take the proper precautions against the consequences of this unforeseen contingency; and in the opinion of the editor of *La Semaine* the builder has in this case the right to consult and argee with the architect as to the proper steps to be taken. If the architect is, like the one in question, both ignorant and obstinate, the builder has in such a case the right, as a last resort, to refuse to go on with the foundation, and, on notice to the proprietor, to require the appointment of an expert to determine what shall be done.

IN the third case another correspondent of the paper asks whether the usual clause in contracts providing for the forfeiture by the builder of certain sums as liquidated damages in case of delay is valid, if no reciprocal promise is made by the proprietor. This is a point constantly discussed among contractors here, most of whom maintain that such a clause is invalid unless a promise is made by the owner to reward the contractor in some way for keeping his agreement in regard to the time of completion; or, as we have often heard it expressed, unless the owner agrees at the same time to pay to the contractor, for every day that the building may be completed before the specified time, the same sum that he would exact from him for delay after that period. It is interesting to note that the French law, which is on this point the same as ours, holds that a clause in a building contract which provides for the payment of damages by the builder in case of delay is to be regarded as the expression of the voluntary intention of both parties, and maintained by courts, with the single reservation that the court may determine the actual number of days by which the completion of the work was delayed through the contractor's fault.

A NEW explosive has been discovered by M. Roca, a French engineer, who communicates an account of it to *Le Génie Civil*. The discovery was due entirely to scientific induction from some experiments made upon different specimens of dynamite, with a view to the determination of the effect on the explosive force of the various inert, or at least slowly combustible substances, with which nitro-glycerine is mixed to produce the dynamite of commerce. Of late, in place of the infusorial earth which formed the solid portion of Nobel's dynamite, such substances as sawdust, powdered bark, and even gunpowder, have been used, probably for the sake of economy alone, without, except in the latter case, any reference to the influence which they might have upon the combustion of the nitro-glycerine; but M. Roca, in testing a variety of samples, was struck by the difference among them in regard to energy of explosion, and discovered that if a portion of free carbon, sufficient to combine with the oxygen disengaged from the nitro-glycerine, was present at the moment of detonation, the effect was greater than where, as in the case of gunpowder, the solid portion alone furnished oxygen enough to burn all the free carbon, without calling upon the nitro-glycerine for any. In fact, it appeared from experiment that the dose of carbon might with advantage be so great as not only to be itself oxidized into carbonic oxide by the oxygen of the nitro-glycerine, but to reduce the carbonic acid developed by the explosion of the latter itself into carbonic oxide. The limit of the advantageous effect of free carbon ceased here, and if more were added to the mixture, the cavities formed by the explosion in the lead cubes used for test were found simply lined with soot; but up to the limit necessary for converting all the carbon in the dynamite into carbonic oxide, the addition of a reducing agent was shown to be an important gain. This was confirmed by theory, which shows that pure nitro-glycerine, which is composed of six parts of carbon and two of hydrogen, combined with three times as much nitric acid and water, decomposes on explosion into six parts of carbonic acid, five of watery vapor, one of oxygen and three of nitrogen, while the addition of seven more parts of free carbon to the mixture causes the development, by explosion, of thirteen volumes of carbonic oxide, five parts of watery vapor, and three of nitrogen, or twenty-one volumes of gas in place of fifteen. As the power of an explosive depends principally on the amount of gas which results from its sudden combustion, it was evident that the addition of pure, or nearly pure carbon, in a condition to be readily combined with the other elements, ought to increase materially the force of nitro-glycerine, and M. Roca experimented accordingly with an admixture of sugar, as a highly-carbonized body immediately available, and found that three parts of this, mixed with seven parts of nitro-glycerine, detonated with a force from thirty to thirty-five per cent greater than that of pure nitro-glycerine. Many other organic carbonaceous substances may be employed in place of sugar, with various advantages. In comparing these simple compounds with the celebrated explosive gum, prepared by dissolving gun-cotton in nitro-glycerine, it is found that the latter is far inferior, having an energy very little superior to that of pure nitro-glycerine.

THE *Metal Worker* gives an account of a curious form of heating apparatus in use among the Mennonites of Dakota.

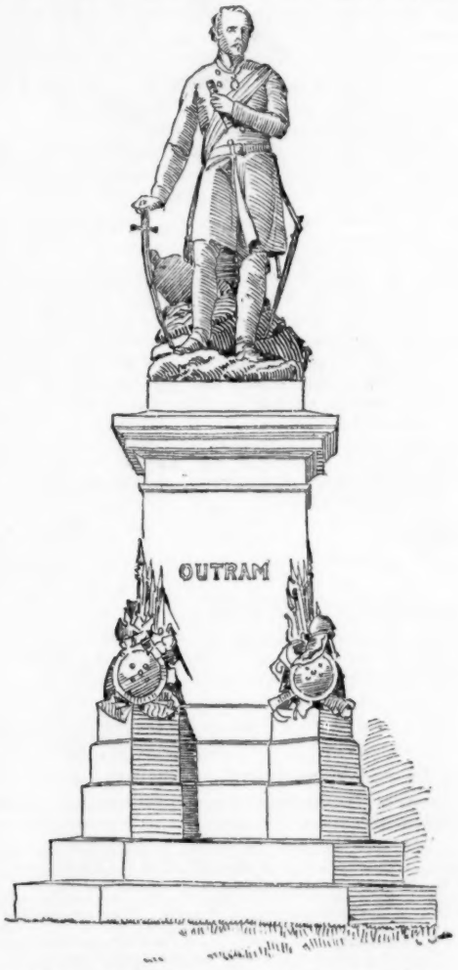
In remembrance, probably, of a custom very prevalent in Germany, and perhaps elsewhere, the Mennonites build their houses with four rooms, and at the intersection of the partitions dividing the rooms they build a sort of dome of brick with a chimney above, extending through the roof. The dome stands on four piers, placed in the line of the partitions, so that there is an opening from each room into it, which can be filled up with brickwork at pleasure. In using the furnace, or whatever it may be called, all the openings are closed except one, which serves for the care of the fire, and the rooms without direct access to the fire are warmed by the heated brick walls of the furnace. The German stoves are often set in partitions in the same way, the stove doors opening into a hall or passage, from which the servants can keep the fire in order, while the porcelain or brick sides radiate heat into the rooms on the other side of the partition. In the Mennonite colonies there is, however, special reason for keeping the fire shut out from the best rooms, as the fuel used is hay, which makes a dense and suffocating smoke on first lighting, and leaves a great deal of light ash to be blown about the room. At first sight this would appear to be one of the most unmanageable and inconvenient of fuels; but the hay is prepared by twisting very tightly while fresh or moist into ropes, which retain their shape when dry, and form a tolerable substitute for wood, burning so slowly that the furnace requires replenishing only two or three times a day. Cooking may be done with the same fire, by taking out a part of the brick wall of the furnace in one of the rooms not used for feeding the fire. An iron box is inserted in the hole, and the brickwork made tight around it, and the oven so formed is available for any purpose.

STATUES AND MONUMENTS OF LONDON.[1]—II.

General Havelock, Trafalgar Square, 1861. Behnes, Sculptor.

OF military heroes whom London has delighted to honor, there are two statues of the Duke of Wellington, the one in front of the Royal Exchange by Chantrey [see Illustrations] fully up to the usual level of dignity of this sculptor, and the other by Wyatt, a monstrous colossus, lately on the top of Decimus Burton's arch at Hyde Park Corner. On the recent removal of this arch, the members of the Royal Academy unanimously petitioned that this statue should not be replaced over the archway, where its position, they said, was utterly opposed to every canon of art, and in accordance with this the Government decided that the statue was not to be re-erected on the arch. Its descent, however, has rather aggravated than reduced the difficulties connected with the statue; bad as it was when far removed from the eye, it is still worse

Sir Charles James Napier, Trafalgar Square. Adams, Sculptor.



James Outram, Thames Embankment, 1871. M. Noble, Sculptor.

when brought within nearer range of vision; its details are even worse than its composition as a whole; its colossal size makes it most difficult to find an appropriate place for it. On a pedestal in its present position at Hyde Park Corner it would overtop and dwarf everything else, and make it impossible to decorate further this place. A committee composed of the most eminent advisers on such a subject that could be named, and including the present Duke of Wellington, have recommended that the statue should be recast, and that another statue should be made of the great Duke, of the ordinary heroic size, better adapted to the place where, above all others, it is fitting that it should be erected.

Lord Nelson at the summit of the well-known column [see Illustrations] in Charing Cross, around which Landseer's very sketchy lions watch; the very commonplace statues of Havelock by Behnes, and of Napier by Adams those of Lord Clyde by Marochetti [see Illustrations], and Sir John Burgoyne by Boehm, in the Garden of Carlton Terrace, and Sir James Outram on the Thames Embankment; the military trophy [see Illustrations], in commemoration of the Crimean War, of three guardsmen surmounted by a gigantic Victory holding out wreaths in both hands, well satirized by *Punch* at the time as the "quoit-thrower," a most gloomy erection by John Bell, and the graceful column by Gilbert Scott in front of Dean's Yard and the Abbey in honor of the Westminster School contribution to the roll of honor in the same war [see Illustrations]; the so-called Achilles in Hyde Park [see Illustrations], a copy of a statue at Rome, palmed off upon the ladies of England, and erected by them as a tribute to the Duke of Wellington, complete the list of military monuments.[2]

John Stephenson, Euston Square, 1871. Marochetti, Sculptor.

The Thames Embankment appears to have given a great incentive to the statuary art. John Stuart Mill, an interesting likeness by Woolner, almost too realistic, and which reminds one especially of his customary attitude in the House of Commons, has been placed there. Statues of Raikes the founder of Sunday Schools, and of Brunel the engineer, and perhaps the worst example of modern statues, have also been erected in these gardens; while in the gardens at the back of Carlton Terrace leading to Pall Mall are Sir John Franklin [see Illustrations], a statue than which few are regarded with greater interest by the public, and Lord Lawrence [see Illustrations], a by no means satisfactory figure, in an attitude singularly at variance with his dignified and modest demeanor.

Elsewhere in London are Dr. Jenner in Kensington Gardens; Stephenson, the engineer, in Euston Square; George Peabody in the City; Cobden in Camden Town; Lord Byron, a statue quite unworthy of its site in Hamilton Gardens; Lord Herbert of Lea [see Illustrations], one of the few productions we have in London of Foley, a most poetic conception, refined, graceful and full of thought; and the more recent statue of Thomas Carlyle by Boehm, erected in Cheyne Walk, Chelsea, near to the house in which he lived so long, and one of the most interesting statues of the day, a model in design, likeness, and place, of what a memorial to such a man should be. There is also a statue in marble of Shakespeare, a copy of that in Westminster Abbey, erected at the cost of Mr. Albert Grant in Leicester Square, surrounded by busts of Newton, Reynolds, Hogarth and Hunter, who lived in the Square. There is again the imaginative and chivalrous work of Richard the First in Old Palace Yard by Marochetti, but not well placed there.

George Peabody, Royal Exchange, 1871. Story Sculptor.

It will be seen, then, that the total number of statues is about fifty, of which eighteen are of royal personages, and of the remainder all

[1] A paper by Mr G. Shaw Lefevre, reprinted, with added illustrations, from the *Nineteenth Century*. Continued from page 53, No. 475.

[2] See note at end of article.

have been erected within the present century, and by far the larger proportion in the last twenty years. There are no statues of the greatest of English warriors, of Edward the Third, or Henry the Fifth, or Blake, or Marlborough. There is none of Cromwell. Chatham is equally without tribute of this kind. Milton, in spite of his association with London, has no recognition except that of a bust in the Abbey. To Dr. Johnson a statue has been erected at Lichfield, the place of his birth, but none in

The Byron Memorial, Hyde Park, 1879. T. Belt, Sculptor.

Lord Herbert of Lea, Pall Mall. Foley, Sculptor.

London, where nearly the whole of his life was passed, and where he died. The statues by Foley of two celebrated Irishmen, Burke and Goldsmith, erected in front of Trinity College, are among the very best works of art of modern times, but in London, where their lives were spent, there are no statues of them in the open air. It was at least to be expected that the Benchers of the Temple Inn would have done something in honor of one who was so long connected with the Temple, and who was buried in their church.

Richard I, Old Palace Yard. Marochetti, Sculptor.

A statue of Charles Dickens in some one of the many parts of London identified with his works would be appropriate. Compared with these it may well be doubted whether many of those to whom statues have been erected in the last twenty years are worthy of the honor. It is a question whether any statue should be erected until ten years or more have elapsed since the death of the subject. This would avoid many which are decided upon in the excitement of grief and regret immediately after death. What is still more to be deprecated is the erection of a statue during the life of its subject, except perhaps in the case of the most eminent.

In any case it is not desirable that statues should be multiplied unduly. In the view of many people, London, by reason of its climate, is unsuitable for statues in the open air, at least without canopies. It may be replied to this the suitableness of a statue depends wholly upon the work itself. Really good works of art like the best of those which have been named are certainly not out of place even in London; they rise superior to the conditions of the atmosphere and to their environment. A bad statue, however, is intolerable; there is no escape from it; it adds to the gloom of its neighborhood, it intensifies all other bad conditions, and is a public misfortune. A statue once erected in a public place can be removed only under most exceptional circumstances. Too great care, then, cannot be taken by the authorities in consenting to the erection of a statue. There is nothing of which it is more difficult to judge the effect in advance. The small model of a statue may please, the full-sized cast in the studio may look well, but when the final result in bronze or marble is put on its pedestal in the place of destination, the result may be eminently unsatisfactory, and perhaps to none more so than to the artist himself. It may be a question whether, before giving final permission for the erection of a statue, it ought not to be required that a model in plaster, colored to represent bronze, should be placed on the intended site, and whether a committee of taste should not be the final arbiters in a matter so delicate and difficult.

Thomas Carlyle, Cheyne Walk, Chelsea. Boehm, Sculptor.

REPORT OF THE BOARD OF TRUSTEES, A. I. A.

American Institute of Architects,
Secretary's Office, 10 Catherine Street,
Newport, R. I., January 28, 1885.

To the Editors of the American Architect: —

Dear Sirs, — I enclose herewith, for publication in your journal, the Report of the Board of Trustees, A. I. A., presented at the Albany (eighteenth) Convention, October 22, 1884.

American Institute of Architects,
Secretary's Office, 10 Catherine Street,
Newport, R. I., October 20, 1884.

To the American Institute of Architects: —

The Board of Trustees for the year 1883 held four meetings after the Providence-Newport Convention, and your present Board has

John Churchill's Statue. — The Duke of Rutland lately threatened to resign his peerage if the statue of the Duke of Wellington were dishonored by removal to Aldershot. What would he say if he saw the statue of as great a man in his day, the wonderful monument erected to the Duke of Marlborough, which stands in Marlborough Square, Chelsea. There, overlooked by houses inhabited by cabmen, in a circle which should be a garden but is only a waste, shaded by the trees which still hint that what is now a barren desert was once a bit of refreshing green, stands one of the most remarkable of the memorials of the Flamboyant Georgian era. A figure in a full flowing bottom wig, surmounted by a helmet of a late period, and enveloped in the Roman toga, is tilted forward on its defaced pedestal. Its pose is not without dignity, and its main lines are graceful. The faithful British lion, about the size of a mastiff, bounds at the figure's feet in affectionate intimacy. This is what remains of what was once a representation of the Duke of Marlborough. For some years it has been made the target for the cockshies of Chelsea boys, and in consequence it is difficult to trace any resemblance to Lord Randolph Churchill in the battered features. Imagination enough, however, to put a moustache on this Roman in a wig sees a great likeness. There is some talk of a movement to rehabilitate the garden and restore to some extent the statue, but in the presence of the failure of the London Government bill, it is hardly likely that anything will be done, unless the Fourth Party take up the matter and restore the statue in honor of the distinguished ancestor of its distinguished leader. Mr. Shaw Lefevre will do nothing. He has enough to do with the other Great Duke, and has not time to take up the fine carving which once graced the walls of Burlington House from the dust of Battersea Park.—*London Letter to the Liverpool Mercury.*

held nine regular, one adjourned, and one special meeting, eleven in all, which have been fairly well attended, with the exception of two, at which no quorums were present. Five of the above meetings were held in the office of the Treasurer and ten in the Institute room, No. 81 Bryant Building, New York City.

At the Seventeenth Convention, several matters of importance were referred to your Board and have received the attention of its members, collectively and in committees; the results will be laid before you in consecutive order.

At the Seventeenth Convention Mr. T. M. Clark of Boston read a paper entitled the "Architect as a Sanitarian." This paper has been published in full in the "*Proceedings.*"

Mr. John Moser, of Anniston, Alabama, presented at the same time an elaborate perspective elevation for an Institute of Architects building, with an explanatory key. In accordance with a resolution passed by the Convention, this drawing, with its key, has been published in the *American Architect*, but owing to the impossibility of reducing Mr. Moser's drawing to the dimensions of the pages of the "*Proceedings*," the Committee on Publications were obliged to omit it from that volume.

The annual Address at the Seventeenth Convention was delivered by the President in person; it has been published in the "*Proceedings*," and in the *American Architect.*

In preparing the "*Proceedings*" for publication, the Committee has endeavored to render them as full and accurate as possible; they also, by vote of the Board of Trustees, inserted as an appendix a photo-caustic of a group of twenty-eight of the architects present at the Seventeenth Convention. Copies of these "*Proceedings*" have been sent to all Fellows and Associates, and to such other architects and laymen who have from time to time applied for them.

At a meeting of your Board, held on the second of July, it was voted to send a circular to all Fellows and Associates, requesting those who might be in possession of duplicate copies of the "*Proceedings*" of the seventeen conventions of the Institute to contribute them towards filling up the breaks in the existing files (Appendix A). The result has been highly satisfactory, the larger number of duplicates coming from a past Secretary of the Boston Chapter.

The Report of the Treasurer will be laid before you in due course.

By the exercise of strict economy and the performance of much clerical labor by the executive officers of the Institute, the routine expenses for the past year have been met in full and much good work accomplished. Your Board would call attention to the necessity of making some special provision for defraying the annual rent of the Institute room in the Bryant Building.

To meet this annual rental, the regular funds at the disposal of the Treasurer are inadequate. Up to January, 1884, this room was occupied on sufferance. At a meeting held on October 23, 1883, it was voted to send a circular letter to each Fellow and Associate, requesting financial aid to the amount of two hundred and fifty dollars, for the rent of room for the current year. This circular (Appendix B) was in general well received, and numerous subscriptions forwarded to the Treasurer. These subscriptions, and a guaranty fund provided by three members of your Board, enabled the Trustees to lease the room for one year.

While thus responding to the present needs of the Institute, many of the subscribers stated that in their opinion the matter should be brought before the Convention, and some permanent provision made for defraying the Institute rental from the general fund, and not by the individual subscriptions of members. Your Board would therefore call your attention to the importance of providing a fund for the Institute rental, a matter which it deems to be one of vital interest, and one closely allied to its general work and influence.

The sub-committee of your Board on a revision of the Schedule of Charges, Mr. Napoleon Le Brun, reported progress at the Seventeenth Convention, and was continued to the present meeting. The report of Mr. Le Brun has now been printed and distributed to members, and will be laid before you for action. (Appendix C.)

For temporary use, a new edition of one thousand copies of the present Schedule has been printed during the past year. (Appendix D.)

Since the members of the Institute last met in convention, there has been a marked increase in the numbers of both the Fellowship and Associate grades. Six Associates have been promoted to Fellowship, viz.: Messrs. Arthur Rotch, W. G. Preston, M. Fred Ball, W. C. Smith, Edward H. Kendall, and E. Townsend Mix.

By first election six Fellows have been added to the roll, viz.: Messrs. A. H. Stem, J. H. Stem, E. J. Hodgson, James G. Cutler, R. W. Gambier-Bousfield, and John Ord. Twelve Associates have been elected, viz.: Messrs. P. L. Le Brun, Leoni W. Robinson, H. W. Kirchner, B. H. Enos, Charles G. Mueller, W. S. Wicks, Edmund R. Willson, F. W. Vogdes, J. McDonnell, F. W. Humble, Eugene H. Taylor, and David L. Stine.

As a matter of discipline, two Associates have been dropped from the roll. One Fellow has died during the year, leaving the net gain on the list of membership for the year, to date, fifteen. There are now on the roll of the Institute eighty-one Fellows and ninety-six Associates, a total membership of one hundred and seventy-seven. Several applicants for both grades are now awaiting the action of your Board.

More than a passing notice should be given to the death of our late Fellow, Henry Fernbach, who died in the city of New York, on the 12th day of November, 1883. Mr. Fernbach was an ardent friend of the Institute, thoroughly believing in the advantages of membership therein, and aiding its advancement by all the means in his power. He was one of the oldest members on its roll, having been elected to Fellowship, June 25, 1866.

At the Seventeenth Convention several radical changes in the manner of electing Fellows were adopted, and all restrictions upon the number to be enrolled in that grade removed. The experience gained during the past year seems to vindicate the wisdom of that action. An increased interest in the work of the Institute has been developed and stimulated in all parts of the United States, and even in the Dominion of Canada. Applications for membership have been frequent, and each case has been carefully investigated before action. The lists of questions in regard to applicants for Fellowship have been regularly sent out, and have elicited replies, giving full and reliable information in regard to the character and professional fitness of the candidates.

Two Chapters have been added to our Institute Union: the St. Louis Chapter was admitted on the 16th of April, 1884; the Indiana Chapter, with headquarters at Indianapolis, on the 2d of July, 1884. The Secretary is now in correspondence with architects in Nashville, Rochester, Detroit and Buffalo, where the formation of Chapters is in contemplation. The rehabilitation of the Albany Chapter is also hoped for.

Under date of April 5, 1884, the editors of the *American Architect* published an "*open letter*" to the profession on the subject of competitions. This letter (Appendix E) formed the text for much discussion among architects in general, and several Chapters of the Institute intimated a desire to have some action taken in reference to the matter by the Board of Trustees.

Your Board, in compliance with these intimations, prepared a circular on the subject, including a reprint of the "open letter," requesting the recipients to consider the points discussed in this letter from the standpoint of their own views and experiences in connection with competitions, both open and limited, and communicate the results of such consideration to the Secretary of the A. I. A.

These circulars were distributed not only among all the members of the Institute, but to one hundred architects not members of our body. Many replies have been received from Institute men and others, nearly all endorsing the scheme proposed. Several respondents suggested amendments, and a few disapproved of the action altogether, on the ground that the system of calling for competitive designs was radically wrong. Your Board believing that the question of competitions, as brought forward in the "open letter," is an important one, voted to bring the subject to the attention of the Eighteenth Convention, through its Annual Report.

During the past year calls for copies of the "*Proceedings*," both for single numbers and for full sets, have been unusually numerous, both from individuals and from public libraries, including the Bibliothèque Nationale, at Paris. As far as possible these calls have been met, but the earlier numbers of the "*Proceedings*" are now nearly out of print, and it is difficult to meet the requests on file.

From the United States Department of the Interior a request has been received for a history of the Institute since 1875. Owing to the multiplicity of duties devolving upon the Secretary, this history has not yet been prepared.

In compliance with a request from the Secretary of the New York and New Jersey Branch of the International Institute, for preserving and perfecting Anglo-Saxon Weights and Measures, that your Board delegate one of its members to attend a meeting of conference relative to a representation at the Meridian Congress at Washington, D. C., Mr. O. P. Hatfield was requested to attend the meeting informally, and to report its proceedings. Mr. Hatfield's report is not given herewith, in view of the fact that a member of the International Institute is expected to be present at the Albany Convention, and present to your notice the aims and objects of the Society which he represents.

In accordance with a general wish expressed at the Seventeenth Convention that the eighteenth be held in the city of Albany, your Board entered into correspondence with their fellow architects in that city. Finding that satisfactory arangements could be made for the work of the Convention, your Board appointed a committee on arrangements, consisting of Messrs. Emlin T. Littell, Walter Dickson, Geo. C. Mason, Jr., and A. J. Bloor. Through the assistance and generous hospitality of the Albany architects, the committee were enabled to present the programme of exercises hereto appended.

In summing up the work of the past year, your Board feels greatly encouraged, both by the steady growth of the Institute in numbers, and in the strong and increasing interest in its welfare which is everywhere manifested. Since the last convention the Secretary has received and answered about two hundred letters on the most varied subjects connected with the profession of architecture. The applications for membership are constantly increasing, and were the Institute possessed of the necessary financial resources, the work and influence would be greatly enhanced. As it is, the Institute is rapidly becoming a power for good. The formation of new Chapters in the larger cities of the Union disseminates a more general knowledge of our aims and objects among the laity who form our clientage, and the members of the Institute, individually and collectively, feel the stimulus of mutual association and respect.

Respectfully submitted for the Board of Trustees.

GEO. C. MASON, JR., Secretary, A. I. A.

Since October 20, 1884, the following additions have been made to the Fellowship and Associate grades of the Institute.

Fellows by promotion. — Messrs. W. L. B. Jenney, Chicago, Ill.; David L. Stine, Toledo, O.; James Murphy, Providence, R. I.

Fellows by first election.—Messrs. F. M. Whitehouse, Chicago, Ill.; Franklin H. Janes, Albany, N. Y.; Robt. W. Gibson, Albany, N. Y.

Associates. — Messrs. John J. Deery, Philadelphia, Pa.; F. B. White, New York, N. Y.; Adolph Fleischman, Albany, N. Y.; Franklin J. Sawtelle, Providence, R. I.

Applicants for both grades are now awaiting action by the Board of Trustees.

Very truly yours,

Geo. C. Mason, Jr.,
Secretary, A. I. A.

THE BENNINGTON BATTLE MONUMENT.

THE indifference in this country to the merits of public monuments as works of art has become so general that any consideration of them beyond a statistical statement of their size, weight and cost with the usual friendly commendation of the prudent critic, seems out of place even in an art journal.

It is perhaps because of this indifference, that the projectors of these structures are emboldened, not only to propose and execute novel designs, but to promulgate novel opinions concerning monuments, architecture and art generally.

In accord with this sort of literary attachment to monumental construction is the report of the committee appointed by the Bennington Battle Monument Association. This report is, we venture to affirm, the most remarkable document ever written on any art subject. On another occasion we shall remark upon it at length as an example of what may be accomplished in a new field. For the present we wish simply to refer to a few points.

The report confines "monumental construction" to "two methods," one to "size and grandeur of dimension," the other to "artistic conception and execution." The first being "altogether architectural," the second, "principally sculptural," and it affirms that architecture and sculpture "cannot be successfully combined" in monuments, that it has "always failed," and is not likely to succeed.

The authors of this report forget that there are as many varieties of "monumental construction" as there are varieties of genius among artists, and that the old world is replete with examples. They also forget that all recognized monumental structures, like the towers of Italy, Trajan's Column, the Column of the Bastile, the Egyptian Obelisks, the Great Pyramid and other famous monuments known to the world are regarded above all as great works of art, and their "size and grandeur of dimension" receive adoration because they exemplify the same elements of true art that are possessed by the best antique statues, and not because they have "size and dimension" as pieces of masonry. Monuments combining architecture and sculpture are among the most treasured objects of art, and their number is legion. There is hardly a church in Europe that has not one, and sometimes many examples, and they represent a combination of genius excelled in no department of art. If it is true that architecture and sculpture have not been successfully combined, what a sorry mistake the art and learned world has made in its love for the works of India, Assyria, Egypt, Greece, Italy and France. So too, the dwellers in the vicinity of these noble works, unlearned for the most part though they be, must be condemned for the admiration and pride in which they have been wont to hold these objects of their affection.

It is somewhat startling to hear that the sculpture on the temples, palaces and churches, and on the monuments in the open air in these countries, is in the language of this report, "a mere insignificant detail and embroidery," "frittering away the simplicity and singleness of purpose upon which their effect depends." It is left to the civilized American to thus tear away one of the delightful delusions of art, and to deprive a considerable part of mankind of one of its choicest comforts.

Not only is the report dissatisfied with ancient monuments, but it would cruelly discourage any possible originality; for it says that "it is out of the question" to discover "a new or original method" of reaching a height of several hundred feet in a monumental structure. It might add that, taking the human form as a model, it would also be out of the question to make a new or original statue. And yet fine towers, obelisks, columns and statues are continually being added to the world of art, that artists and those who love art are content to think, do express "new and original" ideas through "new and original" forms; and it is thought that the form of the tower, the obelisk and column are no more conventional than the human figure, all being subordinate to the mind of man, to be used as he pleases, rather than governing him by any arbitrary principle of art.

The committee is not happy in its mention of tower and column monuments as examples of art. The Nelson Monument, the Duke of York's Column, the Towers of the New Houses of Parliament, and those of the Brooklyn Bridge, have not been classed among the best specimens of those styles of monuments. Perhaps it was not worth while to cite those well known, as they had already as a mass been condemned in the report in the following climax of destruction of all forms of ancient monuments. "No instance of either of these forms of monuments has yet been successful in commanding general admiration, or in filling the measure of desired expression." The reason given for this failure is that "They tell no story; they appeal to no sentiment; their lips are silent; rather they have no lips and no voice."

It seems incredible that any one could make such statements; and also a waste of time to answer them; yet it is just such amazing misinformation that every department of art is obliged to combat in this country.

It needs but little intelligence to condemn the structures cited in this report; but little more to have named others that in some way have spoken to all the world. The monument to Frederick the Great seems to have a voice; that of the Republic, in Paris, the Versailles Monument, the projected one to Gambetta, and many others seem to speak; and they are monuments composed of architecture and sculpture. The Column of the Bastile has not been so far regarded as a silent object. Of towers that commemorate and keep alive the dearest memories there are many. Not content with sending all the monuments of the world to perdition, the report also sits heavily upon poor architecture, as follows: "Of all the subjects of human exertion, architecture has, in its external qualities, displayed the smallest modern advances, because its supposed advances have generally failed to stand the test of time."

FISH AND SEWAGE.

THE suggestion that the conveyance of sewage to the sea may, after all, says the *Times*, be the most profitable method of turning its constituents to account will appear to most readers to possess the merit of absolute originality. It is not put forward today for the first time, since Sir John Lawes tells us that he foreshadowed it in his evidence before the Royal Commission; and he now sets forth in some detail the leading facts on which he relies. Broadly stated, these are that fish must live upon something; that their great abundance upon the eastern and southern coasts of England, as compared with the western coast and with the coast of Ireland, supports the belief that their food is not derived entirely from materials native to the sea; that their bodies contain nitrogen, phosphoric acid and potash, substances in which sewage is rich, and from which it derives its manurial value; and hence, in plain words, that we may possibly do better by manuring the sea with our sewage for the purpose of raising a fish crop than by manuring the land with it for the purpose of raising crops of corn or grass. Assuming that an acre of land, under favorable conditions and with abundant help from manure will yield a ton weight of corn annually, he tells us, on the unimpeachable authority of Professor Huxley, that an acre of good marine fishing ground will yield a ton weight of fish weekly; and he quotes analyses to show that the flesh of fish does not differ materially in composition from that of store cattle, although, when compared with cattle ready for killing, it is deficient in fat. As long as fish are only eaten by one another the materials for their growth are not removed from the river or sea in which they live; but when six hundred thousand tons are caught annually by British fisherman alone, to say nothing of foreigners, and are either eaten by mankind or scattered over the fields as manure, the constant removal of fish material from the water must be supplied from some source or another if fish are to continue to multiply, or even to exist. They live not only upon smaller fish, but also upon innumerable forms of marine animals, and upon marine vegetation; and there is no reason to suppose that what may be called the oceanic supplies of food are illimitable. On the contrary, it is more reasonable to believe that the sea, like the land, can be exhausted of the materials by which life is supported; and that these materials,

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No. 477 American Architect and Building News, Feb. 14 1885

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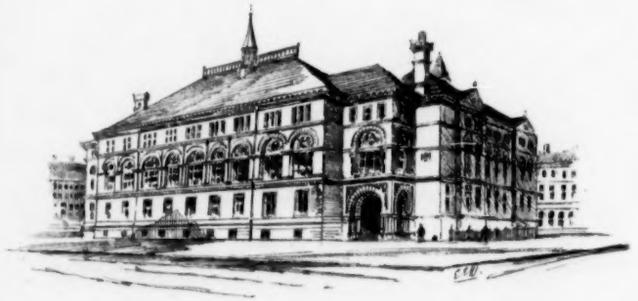
Sketches from the Premiated Designs for the Proposed Public Library Boston Mass.

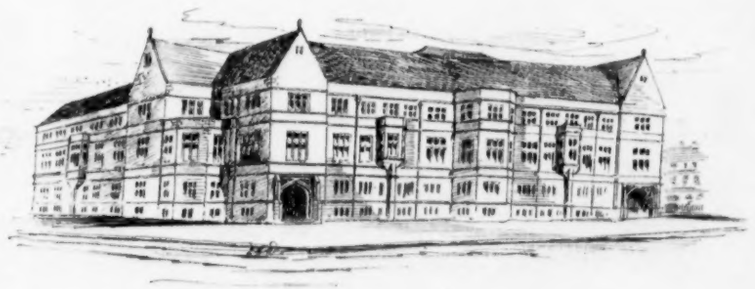
First Prize Design. Mr Charles B. Atwood. East Orange N.J.

Third Prize Design. Mr. Clarence S. Luce. New York City.



Second Prize Design. Messrs O'Grady & Zerrahn. Boston Mass.

Detail Sketch of 2nd Prize Design.



Fourth Prize Design. Mr Horace F. Burr. Boston Mass.

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183 to 189 Dearborn St.

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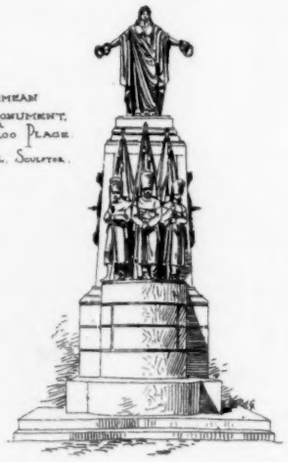
LONDON MONUMENTS AND STATUES No. 2.



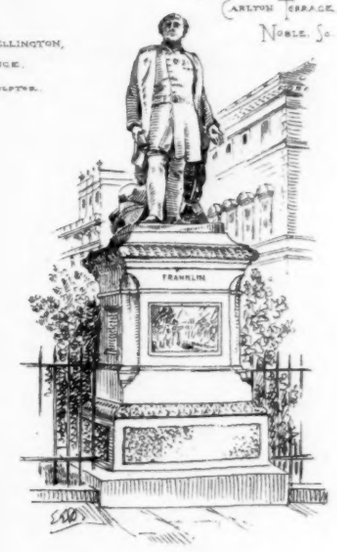
THE CRIMEAN MONUMENT. WATERLOO PLACE. BELL. SCULPTOR.

THE NELSON MONUMENT. TRAFALGAR SQ. BAILEY. SCULPTOR. 1843.

LORD LAWRENCE. CARLTON TERRACE. BOEHM. SC.

COLLIN CAMPBELL. LORD CLYDE. MAROCHETTI. SCULPTOR

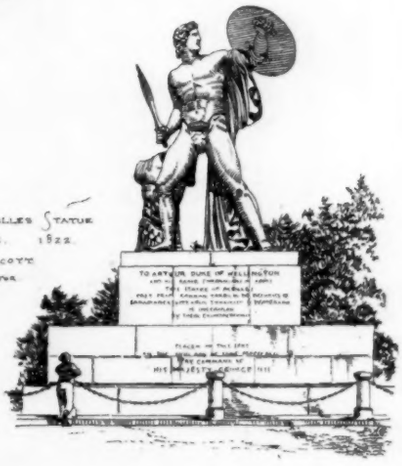
THE DUKE OF WELLINGTON. ROYAL EXCHANGE. CHANTREY. SCULPTOR. 1844.



SIR JOHN FRANKLIN. CARLTON TERRACE. NOBLE. SC.

GREEN PARK ARCH. D. BURTON. ARCHITECT. WELLINGTON STATUE. WYATT. SCULPTOR.

WESTMINSTER COLUMN. SCOTT ARCHT. 1854-9



THE ACHILLES STATUE. HYDE PARK. 1822. WESTMACOTT SCULPTOR.

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American Architect and Building News, Feb. 14 1885 No. 477

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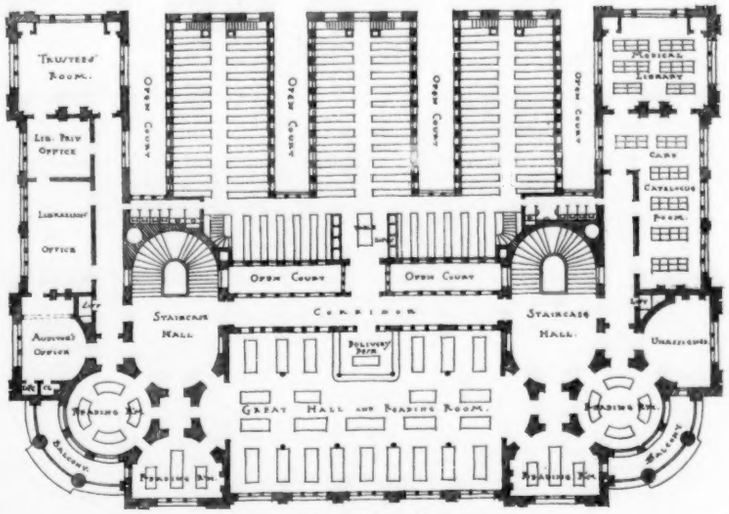
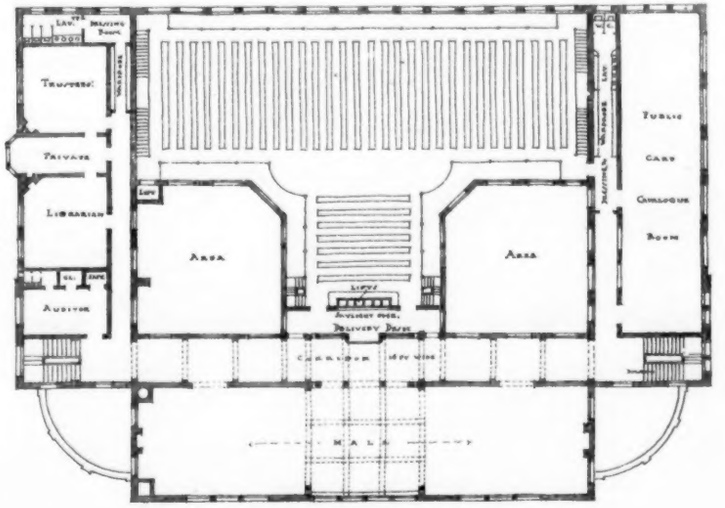


Second Floor Plan.

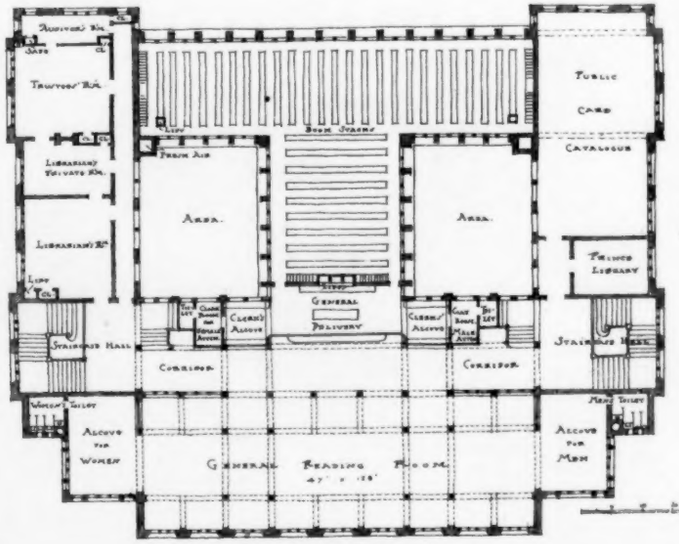
First Prize Design.
Mr. Charles B. Atwood.
East Orange, N.J.



Third Prize Design.
Mr. Clarence S. Luce.
New York City.

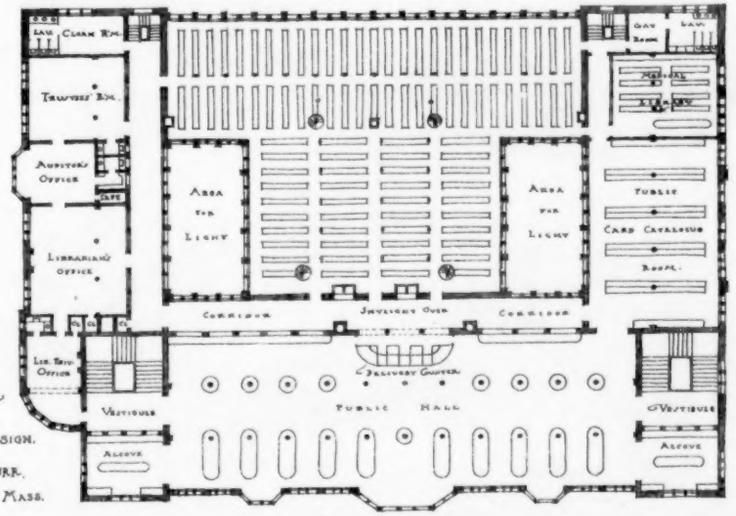
Second Floor Plan.

Sketch Plans
from the Premiated Designs
for the Proposed Public Library,
Boston, Mass.



Second Prize Design.
Messrs. O'Grady & Zerrahn,
Boston, Mass.

Second Floor Plan



Fourth Prize Design.
Mr. Horace F. Burr.
Boston, Mass.

Second Floor Plan.

Drawn from the Original Plans of Exhibition.

Heliotype Printing Co. Boston

American Architect and Building News, Feb. 14 1885 No. 477

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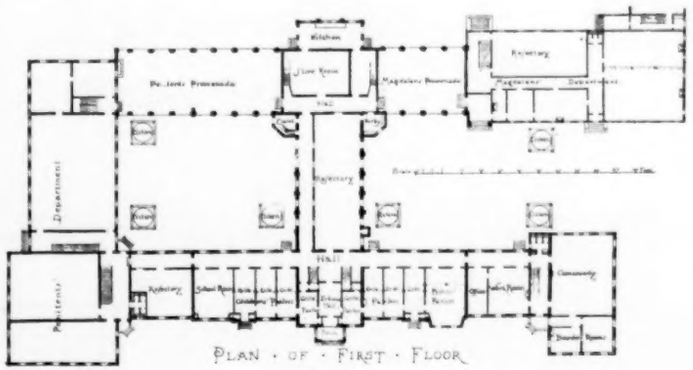
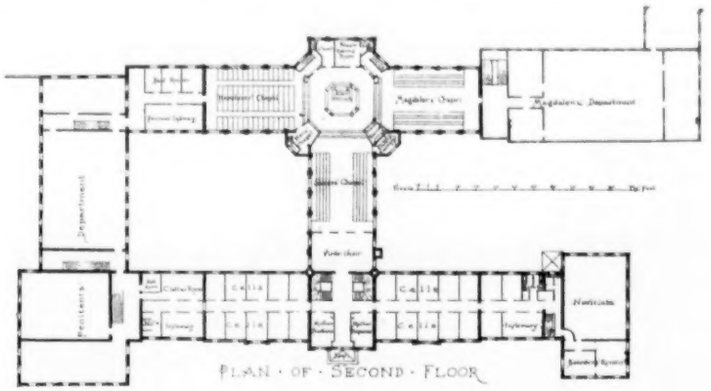
THE GOOD SHEPHERD CONVENT New Orleans La.

Mr James Freret Arch.t

No. 1.



PLAN OF FIRST FLOOR



PLAN OF SECOND FLOOR

E. Ellen Bennett. del.

The Heliotype Printing Co. Boston.

however abundant, are still present in definite quantity, so that their constant removal must be balanced by an equally constant replacement if the growth which they occasion and support is to be continued without stint. At present the yield of fish on the eastern and southern coasts is annually increasing; and Sir John Lawes suggests that the increase may be due, in all probability, to the abundant nutriment which our methods of sewage disposal cause to be poured into the sea. He supports his argument by citing cases in which river fish have manifestly thriven in consequence of a supply of drainage; and all anglers are familiar with the fact that the point of entrance of a drain is usually surrounded by a number of fish feeding eagerly upon the materials which are brought down.

The problem of determining the best way of utilizing sewage upon land has long been the despair of all who have devoted themselves to its solution. Most people can remember, many have cause to remember only too well, the not very distant time when sanguine promoters of companies were declaring sewage to be an inexhaustible source of wealth, and its profitable employment to be the easiest of all undertakings. The late General Scott, with a practical sagacity which time has justified, maintained an opposite view, and declared that the manurial elements of sewage, however valuable in the aggregate, could only be brought into a form fit for use at a cost which would be in excess of their value. He admitted that the manure contained in a given quantity of sewage might be worth a pound, but added that it could not be placed on the land for less than a guinea, and that all hope of profit from sewage was chimerical. The reason he assigned was not only the great comparative bulk of the water in which the valuable materials were suspended, but also the presence of quantities of road drift and other inert substances — "profligate associates," as he used to call them — by which the difficulty of separating what was useful was greatly increased. He said that the domestic comfort afforded by a system of water-carriage must not only be paid for by the loss of all profit on the material, but that urban householders must think themselves fortunate if they could dispose of their sewage at only a trifling expense. Where, as in the poorer quarters of some manufacturing towns, there was no water-carriage, the manufacture of manure and of sulphate and muriate of ammonia would become a remunerative enterprise. The event, so far, has borne out General Scott's predictions. Irrigation, or the direct conveyance of the liquid to the land, has been attempted in several localities; and, it is said, sometimes with a fair amount of success. Such success, however, has depended for the most either upon local conditions of soil, or upon enthusiastic individual superintendence; and it has been relieved by a sufficient number of failures to prove that sewage farming is a less simple matter than has been asserted by some of its advocates. It is attended with the further difficulty that the farms are known or suspected to be unpleasant neighbors, and that they would generally diminish the value of surrounding property for residential purposes.

The suggestion made by Sir John Lawes is far too large a one to be treated summarily, and to be either accepted or rejected upon insufficient evidence. It calls for prompt and complete scientific inquiry, such as might be undertaken with adequate assistance by Professor Huxley. In a country like ours, dependent upon others for a large proportion of the daily food of the people, every addition which can be made to our own resources possesses an especial value from the point of view of national independence; and few things could be more important than such an increase of the fish harvest of our coasts as would tend to a much enlarged consumption of fish as food. It is manifest, if we may assume the general proposition of Sir John Lawes to be correct, that the best method of introducing sewage into the sea, whether directly or through the intermediation of an estuary or river, and also the nature and extent of the preparation which it should undergo, would be matters requiring the most careful consideration. It would be necessary to ascertain whether sewage was most valuable for the support of young fry or of larger fish; since in the former case, it should, of course, be discharged into the estuaries which furnish the chief breeding grounds. It might then also be necessary that it should be freed from sludge and road drift by precipitation or other process, inasmuch as finely diffused solid particles are exceedingly hurtful to fish, choking their gills, and killing them by suffocation. It is by this action that some forms of mining industry are so injurious to the rivers, into which the water passing through the works is discharged.

It must be remembered, too, that fish breathe by means of the free oxygen contained in the water in which they live; and it is probable that the water which forms the chief bulk of sewage would be to a great extent deprived of oxygen, this having entered into combination with the various organic constituents. We may assume, therefore, that the quantity of sewage which could be usefully introduced into fish-bearing water would be limited in amount; and that a volume, which when poured into the sea would be highly useful, might nevertheless, if poured into the more limited space of an estuary or a river, be too large in proportion to the mass of water with which it would mingle. It is very probable, even if the present discharge of sewage is doing a good work which was not expected of it, that the conditions under which this work are done might be modified beneficially by the light of inquiry and research. The advantages of the water-carriage system, from the point of view of domestic cleanliness and convenience, are so obvious and manifold that it is not likely to be discontinued, even if it were shown that some different method was to be preferred on other grounds; and hence the achievement of a veritable utilization of sewage, in a manner to imply its complete removal from the vicinity of dwellings, would mark a distinct advance in the great art of dealing profitably with refuse material.

THE ILLUSTRATIONS.

[*Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.*]

CONVENT OF THE GOOD SHEPHERD, NEW ORLEANS, LA. MR. JAMES FRERET, ARCHITECT, NEW ORLEANS, LA.

STATUES AND MONUMENTS OF LONDON. — PLATE II.

FOR description see article elsewhere in this issue.

PRIZE DESIGNS FOR THE PUBLIC LIBRARY BUILDING, BOSTON, MASS.

THE ADAMS EXPRESS COMPANY'S BUILDING, CHICAGO, ILL. MR. GEORGE H. EDBROOKE, ARCHITECT, CHICAGO, ILL.

DESIGN FOR A HOUSE. MR. ROBERT OYLER, ARCHITECT, SPRINGFIELD, MASS.

THE PETERBOROUGH TOWER CONTROVERSY.

THE Bishop of Peterborough the other day confessed to an uncomfortable feeling that he might be "exhibited as 'a dreadful example'" on some temperance platforms. The fate the eloquent prelate professed to dread for himself may be said, on other grounds, to be threatening the Chapter of his Cathedral. The difficulties that reverend body involved themselves in when — like the Irishman who killed his pig to save it from dying — they resolved to take down their central tower, the "*magistra turris*" of their noble minster, to prevent it from falling about their ears, may well render them a "dreadful example" to all other Chapters, whom it warns to look well to the stability of the ancient fabrics of which they are the temporary guardians, and if they call in professional advice to be prepared to follow it. "A stitch in time," we all know, "saves nine." It would have required many stitches to have kept up Peterborough tower. Indeed, nothing would have sufficed to save it — *tenui tibicine fultam* — from falling but the complete reconstruction of its four legs. All were unequal to the work they had to do. How unequal was hardly realized till their demolition revealed the badness of their construction; mere shells of ashlar, filled in with rubble, without bond or proper cement. One poor crazy pier only kept its place by being splinted up like a broken limb. The wonder was, as with many Norman towers, how it had stood so long. The practised eye of the late Sir Gilbert Scott, fresh from his colossal works at St. Alban's and St. David's when called in to advise the Dean and Chapter, at once detected the danger. His advice was sharp and decisive. The tower ought to be treated as those we have just named had been. Upheld by timber shores, the arches braced with centreing, one by one the ruinous legs should be taken down and rebuilt in solid masonry, on a deeply-laid and sufficient foundation. There was no difficulty, certainly no risk, about the work. It had been accomplished again and again with perfect safety. One pier had been thus treated by himself at St. Alban's; two piers at St. David's; while at a still earlier date, the late Mr. Cottingham had boldly removed and replaced all four piers at Hereford, without the slightest risk or disturbance of the fabric they supported. But the work would certainly be a costly one, and it was not urgent. There was no immediate fear of the tower falling. So the report was received, discussed, and — shelved. Temporary measures were adopted to stave off any actual danger. Nothing, however, was done to remedy the original evil, and much precious time was lost. Meanwhile the crushing went on. Cracks widened, fissures yawned, new points of weakness were developed, until, some two years since, the condition of the tower become so threatening that it was evident that measures must be taken without delay to avert such a catastrophe as had happened four-and-twenty years before at Chichester. In the meantime the great cathedral restorer of our age had passed away. The architect on whom his mantle had so worthily fallen, Mr. J. L. Pearson, was called in to advise the Chapter. He felt as little doubt as Sir G. G. Scott had done that the lantern could be kept in its position; its shattered walls held together, and its tottering supports one by one rebuilt. If the Chapter resolved on this plan he was

ready at once to carry it out. This, we think, would have been the wisest course. The original work would have been preserved intact, and (which would have been no small gain) the whole of the miserable controversy which has since arisen would have been averted. We should have been spared the letters and replies, statements and counter-statements, hard blows dealt by practised hitters, never careful to spare those who have the misfortune to differ from them, and mutual accusations of bad faith, which certainly do not contribute to the amenities of controversy. There would have been none of the ruffled tempers and irritated feelings which threaten a breach between those who ought to live together as brethren; the Dean and his Committee with Mr. Pearson taking one side, the Canons another, the Bishop — with questionable judgment — supporting the Chapter against their head, and threatening to withdraw his subscription if the course favored by him were not taken; and last, not least, we should not have seen a band of so-called "experts" making confusion worse confounded by the variety of their opinions, and the robust vigor with which some of them have made those opinions known; while one of their number has introduced a new element into the dispute by producing a fresh design of his own, very pretty in itself, but such as certainly never stood, nor, if we may believe an infallible authority, "*se ipso teste*," ever could stand, on the top of Peterborough tower; and finally, to make all things pleasant, Sir Edmund Becket dashing in, in a fine Berserkir rage.

But all this is past praying for. It is no use crying over spilt milk. It was said to be cheaper to pull down than to strengthen and restore. And so the tower is down, and unless the cathedral is to continue in its present half-ruined state, with "maimed rites," bald and undignified, performed in an extemporized choir, fitted up, parish-church fashion, in the eastern bays of the nave, steps must be taken for putting it up again. On this all parties are agreed. But how this is to be done, in what form it is to be rebuilt, on that point the controversy rages. On the merits of this controversy as a question of good faith we have no call to enter. It is not for us to decide whether the terms of the original appeal for subscriptions have been adhered to, and whether the contract will or will not be broken by the adoption of Mr. Pearson's new designs. These waters are too troubled for us to care to fish in. We desire simply to call attention to the fact which is abundantly proved by speeches and letters from Dean Perowne himself, that the original proposal was to reproduce the lantern exactly as it was, without any alteration of its character, either by heightening its base, adding a fresh story, or in any other way. The Dean, in answering a letter of the "Society for the Preservation of Ancient Buildings" — in this case certainly fulfilling their proper mission — "*O si sic omnia!*" — March 1st, 1883, states, "the tower will be *accurately reconstructed stone for stone*" (the italics we are told are the Dean's own), "every stone as taken down will be numbered and replaced." Again, speaking at Northampton on January 20 of the same year, he said (as reported in the *Northampton Herald*) that "they had taken the greatest care in taking down the tower to see that every stone was numbered, so that it might be put back again in exactly the same position as before. . . . and though of course they could not help the tower looking newer than before, yet in every other respect it would not only be exactly the same in appearance, but better in every way."

It may be naturally asked what has caused this change in the Dean's line of action? Why has he thus turned round upon his own original plan? The answer, if we mistake not, lies in the discovery of a large portion of the arcade work of the "*tres historiæ*" of the Abbot Waterville's Norman tower, and of the eastern and western lantern arches, used as so much building stone, with the customary contempt shown by early builders for the work of their predecessors, in the new arches and the Decorated lantern. Much of this work is so good and so well preserved that it appeals loudly for restoration to its original situation. The appeal is not an unreasonable one, nor can we be surprised that Mr. Pearson should be ready to listen to it, and that the Dean should follow him in his desire to reproduce the twelfth-century lantern instead of that of the fourteenth. But we feel convinced that, though "the stones cry out of the wall" to be replaced, the cry ought not to be heard. We may reasonably lament the loss of Waterville's tower, especially now that we can see what a beautiful thing it was. But it is gone. For six centuries the eye has been accustomed to the lately demolished lantern tower. To adopt Mr. Freeman's words in his unanswerable letter to the *Times* of January 2, in its late shape, it was "an historical possession," stamping on Peterborough Cathedral "a personality" with which "nothing but the most urgent practical need can justify any interference." The statement has been adopted by our leading journal that the late lantern tower is a thing of the past, and that, as we must of necessity build a new tower, the nineteenth-century builders have as much right to leave their mark on the cathedral as those of the thirteenth had. But this is a mere attempt to throw dust in the eyes of the public. The lantern still exists; disintegrated, it is true, but all but perfect in all its parts. As the Dean has told us, the stones are numbered ready to retake their old places in the walls and windows. In the name of common sense and historical propriety — may we not add, after what we have already quoted from Dean Perowne's letters and speeches? — in the name of good faith and promise keeping, let this unhappy controversy be ended in the only right and sensible way, by the reconstruction of the lantern as it was and as we all have known and loved it. The compromise suggested by the Canons — namely, to carry out Mr. Pearson's design so far as the reconstruction of the lowest story of the lantern, with its internal Norman arcade, thus elevating the lantern about fifteen feet — deserves the fate of all compromises. It is a half-measure, which will satisfy nobody. If the Chapter is to sin, it had better sin boldly, and adopt Mr. Pearson's design *in toto*, spire and all, though we question whether any one now living would see its completion. The reconstruction of the Decorated arches of the lantern follows as a matter of course. The four Norman arches recommended by Mr. Pearson would be noble features, as they are at Durham — if we had them. But we have not got them. And we have two arches which are very far from meriting the contemptuous language in which Mr. Pearson, enamored of his pet project, speaks of them, not now actually *in situ*, but their voussoirs all carefully numbered and stored away capable of being re-erected in a few weeks' time. At St. David's, we have somewhat the same diversity in the lantern arches and the arcades above them. One arch is round, the other three are pointed. If all were round-headed, the effect would be more harmonious. Yet we do not find that Sir G. G. Scott, when restoring that tower, ever suggested any alteration of their form. Neither did he at Ripon, where the plea is far more urgent. For there the semicircular and pointed arches are not opposite to one another, as they are at Peterborough, and while the southern pier of the western arch has been altered and raised, that to the north, together with the semicircular arch above, preserves the unaltered Norman. There are few of our cathedrals and minsters in which we may not find blots we should be glad to remove, omissions which might be made good, mistakes which could be rectified; nay, pieces of downright ugliness to be acknowledged and deplored. The temptation may be great to add the deficient pinnacles to the ponderous lantern tower of York Minster, and to supply a crown like that at Newcastle to the central tower of Durham, and to finish the western towers of Wells with the "tops" they so evidently require. But to do this would destroy the personality of each of these great churches. They might be the more beautiful for the addition, but they would cease to be the great historical monuments they are. For better or worse, in all their main features, we must accept our mediæval buildings as they have come down to us, and be thankful for our unrivalled inheritance. It is not for us to intrude our own fancies upon them, or by destroying features which do not happen to be our taste, and so blotting out whole pages of their architectural history to try to reproduce what they were when they came first from their original architect's hands. Our duty is an humbler and simpler one; to repair the decays of time, to restore the devastation of violence and neglect, and so to hand down the glorious heritage unimpaired to the generation to come. In the preservation of their magnificent western portico, unsurpassed by any Gothic design in Christendom, and the restoration of the ritual choir, with appropriate stall-work and screens, to its old place beneath the re-edified lantern, to say nothing of the underpinning of the transepts, the Dean and Chapter of Peterborough will have enough on their hands for a long time to come, and may well be content with the modest lantern which satisfied their forefathers, and which, however much depreciated by the advocate of a lofty tower, is no mean specimen of Decorated art. — *The Saturday Review.*

COMPETITIONS.

St. Louis, Mo., February 5, 1885.

To the Editors of the American Architect: —

Dear Sirs,—The seductive "Notice to Architects" from the supervisors of Pottawattamie County, Iowa, in the last issue of the *American Architect*, is considered by "Artifex" a "gem of cheek and subterranean ignorance." As this sort of manifesto is neither beautiful nor rare, it fails to meet Webster's definition of a "gem," and as, by the editor's admission, a half-dozen or more responses may be expected from people who call themselves architects, there is small prospect that the supervisors of Pottawattamie County, Iowa, will soon blush at their own ignorance. On the contrary, the publication of their advertisement in the *American Architect*, with addresses and all particulars in full, is more than likely to increase their harvest of plans and thus confirm them in their "cheek."

The usual comment is subjoined that a profession which "does not care to guard itself," etc., from abuse must not expect other people to do it for them. Such admonitions are unquestionably true and appropriate, but no method has yet been suggested of putting them in practice. There always arises the very pertinent as well as impertinent question which William M. Tweed addressed to the citizens of New York, when they grew restive under his swindling management, "What are you going to do about it?"

The architectural profession is not fairly chargeable with indifference to its interests in this matter of competitions. The unfairness, the losses of time and money, the deception, the tricky frauds of every description which almost invariably attend competitions and always have done, and the indignities cast upon the whole profession thereby are well known, keenly felt, sincerely deplored by self-respecting architects everywhere. They exist to-day simply because no one has yet been able to devise a practicable remedy. It is seriously questioned in some quarters whether such a remedy is possible short of the total abolition of competitions.

Numerous schemes have been devised which would work admirably, perhaps, if they could be strictly carried out. Expert judges to make the awards, the names of competitors concealed, the public exhibition of designs, the award of the work at regular commissions

to the successful competitor, the exclusion of all designs which vary from printed instructions, or whose cost will exceed the prescribed limit, a uniform scale and style for all drawings, excluding illusory perspectives — all this, and much more that is equally good and equally useless, because there is no known way of enforcing any of it.

Some years ago the architects of this city prepared a praiseworthy scheme for the conduct of all future competitions, and quite unanimously signed their names to it. It is the writer's confident belief that it was all ignored in the first competition which followed and has never been heard of since. Can any one report much better success with similar efforts anywhere else?

Where on the one side there is a disposition to take advantage of the eagerness of "people calling themselves architects" to offer plans for nothing, and on the other side there are people recognized as architects who are ready to meet such owners and accept their degrading terms, it is vain to hope by any set of resolutions, of whatever kind, to make competitions satisfactory to any but the successful one, or creditable even to him.

As long as there is no recognized standard of training, knowledge and skill in the profession, people "who call themselves architects" may claim that their right to the title is as good as any one's else, and the public cannot be expected to discriminate where architects themselves do not. Could our architectural associations set up a standard of qualification for an architect, and admit none to membership except upon satisfactory examination or other evidence of proficiency, progress would be made in one direction; but this has nowhere been attempted in this country, and is still something of an experiment with the British associations.

Architects may require owners to appoint expert judges, but if they decline to do so who is to compel them? A few architects may refrain from competing, but every one knows there will be a plenty of plans sent in. Moreover, there are a hundred ways of evading this requirement, as of every other. Who shall decide upon the expertness of the expert? In the competition for the St. Louis Exposition Building one expert was a civil engineer, the other was a carpenter and contractor. How shall we make sure that the expert shall be mutually satisfactory to both owners and architects, then how shall we insure that the expert shall not improve his opportunity to his own private advantage? Such things have been charged before now.

Again, it may be required that the owners shall award their work to the author of the successful design at the usual commissions. If the owners decline to do this, what then shall be done? What sort of compulsion is to be brought to bear on them? It has happened more than once that the committee on awards has refused to adopt any of the plans, and then has quietly arranged with the cheapest man to get up a plan according to their instructions, to embody as many as possible of the ideas they have gleaned from the other plans. How is this sort of sharp practice to be prevented?

In whatever direction we turn we are met by these apparently insurmountable difficulties in the enforcement of our regulations. They have always effectually prevented not only all reform, but all amelioration of the evils of competition. There is no real improvement, but rather a deterioration. On what ground can we hope for any different result in the near future?

It is somewhat remarkable that architects alone among the professions are imposed upon in this way. When a man wishes to select a lawyer, he does not send for a dozen attorneys and invite each one to prepare all the documents necessary for his suit, with the expectation that the one whose paper pleases him best will get the job. What sort of answer would the supervisors of Pottawattamie County, Iowa, get from the legal profession if they were to send out a "Notice to Lawyers," such as they have flung to architects? And yet are not young lawyers as eager for employment as young architects?

The medical profession likewise. Conceive a man's sending for a score of physicians to come to his house to look at his tongue, feel his pulse, write out a diagnosis, prognosis, prescription, etc., with itemized bill of costs, and tell them that he will pay for that one which suits him best. The public is entirely too well informed to try such experiments with the medical profession.

Why should not an architect be selected in the same way as a lawyer or a doctor? Where is the necessity for competitions among architects as a condition of employment?

It is doubtless vain, however, to expect that architects, so-called, will decline to compete as long as owners ask them to. It is possible, however, that if the public were properly informed of the delusive results of competitions, there would be less disposition to call for them and thus a reform be instituted in the right quarter. The history of competitions from the owners' standpoints would be very instructive and serviceable in this direction. It would show that in almost every case the plans so selected have failed to meet the expectations of their owners, often with disastrous results, and that such is the natural if not inevitable consequence of this mode of procedure. Such teaching would be to the point and would find much more serious attention from owners than any resolutions which appeared to be solely in the selfish interest of architects. When once they discover the truth that the only safe way is to select their architect as they do their doctor or their lawyer, on the basis of personal qualification, and then consult him throughout the preparation of the design and its execution, a reform will have been initiated in the matter of competitions which will be at least as promising as any effort which has yet been made to control them.

If this should seem to any one a long and tedious undertaking, let him remember for how many years effort has been making in the other direction with no progress at all. Note, also, how completely the public has been aroused within ten years on the subject of sanitary science, to which at the start they were wholly indifferent, and consider that there are now hundreds of architects to every sanitary writer of ten years ago. Show them that the proposed change will be to their own advantage, and they will be quick enough to change their practice.

C. E. ILLSLEY.

INCENDIARY STEAM-PIPES.

January 24, 1885.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — To what temperature can a steam-pipe be raised by the steam passing through it?

An intensely practical man tells me that wood cannot be ignited by even the closest proximity to steam-pipes in active service, and backs up his assertion by a bet of $10,000, that any fire cannot be traced to this cause.

The same person declares, in regard to tin-covered wooden shutters, that it is necessary to tin only that side of the wood-work that is to be exposed to fire.

In case of a conflagration on the tinned side, would not air work through the cracks, and supply oxygen to the charred wood, creating a blaze, thus destroying the shutter?

The practical man says the tin would melt off before the wood could be sufficiently heated to cause a blaze. What is your opinion?

IGNORAMUS.

[THE temperature of steam, and of the pipe conveying it, increases with the pressure from 212° Fahrenheit at the atmospheric pressure to about 388° at two hundred pounds to the square inch, and in a slightly diminishing ratio for pressures above. The following extract from the *Commercial Advertiser* for February 9, will show the "intensely practical man," that if the bet was actually made he will have to pay. "The recent heavy losses from fire in the lower part of the city was attributed by firemen almost universally to the use of steam as a heating medium, when the hot pipes are not properly protected. The idea that steam-heating pipes cannot set fire to wood is a popular error. One of the best proofs of their danger was afforded about a year ago in the house of Gen. Wager Swayne, in Grammercy Park. Steam-pipes ran through a closet in the basement under the parlor floor, and thence into the library. An alarm of fire was given late one night, and when the firemen tore away the hard-wood partitions they found that the wood-work along which the steam-pipes ran was scorched. The fire had begun in a wooden box into which the steam-pipes entered before forming a coil in the parlor. It was easily got under control, but not before it had done about $10,000 damage. The firemen are inclined to believe that much of their work in the down-town districts is due to nothing else than the lack of protection to steam-pipes." The second question we leave to be answered by the following letter from one much more expert in such matters than ourselves. — EDS. AMERICAN ARCHITECT.]

BOSTON, February 4, 1885.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — If your correspondent desires to win the bet offered by the "intensely practical man," whose views have been submitted to me, he can safely take it.

The persistent and obstinate adherence to a mistaken theory of such men as this "intensely practical man," is one of the chief causes of the loss of property by fire, for want of the commonest precautions in the construction and fitting-up of buildings.

It would not be worth while to offer evidence on the subject to such persons, as there are none so stupid as those who *won't* see.

We have in our office a piece of timber from the sill of a hotel which was set on fire by a steam-pipe, carrying steam at twelve pounds pressure, with the pipe adjusted in what remained of the timber just as it was in the building.

We also have an example of oak wood reduced to fine charcoal, ready to break into combustion, whenever circumstances might have favored, and which was formerly a part of a large boiling kier, lined with cement; the cement being held in place by nails whose heads were covered by it. The heat of the boiling water was carried by the iron nails into the oak of the kier, and would have set it on fire ere long had not a change in the method of boiling caused it to be taken to pieces, when its dangerous condition was discovered.

The last fire for which we paid a small sum of money, which was caused by the contact of a steam-pipe with the wood-work, happened in a new addition to an old mill in the process of construction. The steam-pipe had been placed without allowing sufficient room between the end of the service and the wall for the expansion of the pipe. The thrust caused by the heat brought the pipe in contact with the wood-work, and set the mill on fire.

Your "intensely practical man" also shows that he knows nothing about the right method of preparing fire-doors of wood encased in tin. Covering on one side only makes such doors worth no more than an iron door, if as much.

I quote below from third edition of our instructions on this subject.

Very truly yours, E. A.

FIRE DOORS.

"WE find it necessary to repeat the warning against inadequate fire-doors, as we find that reliance still placed on several classes of doors in which we have no confidence, such as rolled or cast iron doors, corrugated or hollow iron doors, wooden doors covered with zinc; a metal which melts at about 700° Fahrenheit, wooden doors covered on only one side with tin.

"The wooden door covered with tin only serves its purpose when the wood is fully encased in tin, put on in such a way that no air, or the minimum of air, can reach the wood when it is exposed to the heat of a fire. Under these conditions, the surface of the wood is converted into charcoal; and charcoal, being a non-conductor of heat, itself tends to retard the further combustion of the wood. But, if air penetrates the tin casing in any measure, the charcoal first made, and then the wood itself, are both consumed, and the door is destroyed. In like manner, if a door is tinned only on one side, as soon as the heat suffices to convert the surface of the wood under the tin and next to the fire into charcoal, the oxygen reaches it from the outside, and the door is of little more value than a thin door of iron or a plain wooden door.

"We submit the following specifications, drawn by Mr. W. B. Whiting, for making a fire-door or shutter that will resist fire longer than any other door or shutter known to us, the construction of the shutter varying from that of the door only in using thinner wood: —

SPECIFICATIONS.

"A door of the right construction to resist fire should be made of good pine, and should be of two or more thicknesses of matched boards nailed across each other, either at right angles or at forty-five degrees. If the doorway be more than seven feet by four feet, it would be better to use three thicknesses of same stuff; in other words, the door should be of a thickness proportioned to its area. Such a door should always be made to shut into a rabbet, or flush with the wall, when practicable: or, if it is a sliding door, then it should be made to shut into or behind a jamb, which would press it up against the wall. The door and its jambs, if of wood, should then be sheathed with tin, the plates being locked at joints and securely nailed under the locking with nails at least one inch long. No air-spaces should be left in a door by panelling or otherwise, as the door will resist best that has the most solid material in it.

"In most places, it is much better to fit the door upon inclined metal slides rather than upon hinges.

"This kind of door may be fitted with automatic appliances, so that it will close of itself when subjected to the heat of a fire; but these appliances do not interfere with the ordinary methods of opening and shutting the door. They only constitute a safeguard against negligence."

A LIST OF BOOKS.

PEORIA, ILL., January 24, 1885.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — If space permits, give a list of the best books on architecture and building, ventilation and heating, gas-fitting and plumbing, brick and stone masonry, carpentry, and collections of plans for dwellings of moderate cost. (I have those published in your columns.) S.

[CONSIDERING our correspondent's position and evident intention, the information he seeks should only be given after a careful consideration, which requires more time than we can at the moment command; for to answer satisfactorily we would have to compile a bibliography of the standard works covering a wide range. We will therefore mention a few of the desirable works only, and trust to answer more at length before long.

Accepting as a condition that only English books are desired, we suggest the following: —

DICTIONARIES AND ENCYCLOPÆDIAS. — "*Dictionary of the Architectural Publication Society**;" Gwilt's "*Encyclopædia of Architecture**;" Parker's "*Glossary of Architecture;*" Nicholson's "*Architectural Dictionary.*"

HISTORIES. — Fergusson's "*Handbook of Architecture**;" Viollet-le-Duc's "*Discourses on Architecture.*"

CONSTRUCTION AND MATERIALS. — "*Notes on Building Construction**;" Thurston's "*Materials of Engineering;*" Clark's "*Building Superintendence**;" Dobson's "*Art of Building.*"

CARPENTRY. — Tredgold's "*Carpentry**;" Nicholson's "*Carpenters' and Joiners' Assistant.*"

LIMES, MORTARS AND CEMENTS. — Gillmore's "*Practical Treatise on Limes, Hydraulic Cements and Mortars**;" Reid's "*Portland Cement;*" Vicat's "*On Cement;*" Burnell's "*Limes, Cements and Mortars.**"

IRON. — Fairbairn's "*On the Application of Cast and Wrought Iron to Building;*" Unwin's "*Iron Bridges and Roofs**."

SANITATION. — Latham's "*Sanitary Engineering**;" Gerhard's "*Hints on the Drainage and Sewerage of Dwellings**;" Waring's "*Sanitary Condition of Dwelling-Houses;*" Denton's "*Handbook of Sanitation.*"

HEATING AND VENTILATION. — Peclet's "*Heat and Ventilation**;" Putnam's "*Open Fireplace;*" Billings's "*Ventilation and Heating;*" Box's "*On Heat;*" Galton's "*Healthy Dwellings;*" Baldwin's "*Steam-Heating for Buildings;*" Tomlinson's "*Warming and Ventilation.*"

DRAWING. — Ware's "*Modern Perspective**;" Linfoot's "*Architectural Picture-making.*"

BRICK AND STONE. — Dobson's "*Bricks and Tiles;*" Dobson's "*Masonry and Stone-Cutting;*" Davis's "*Bricks, Tiles and Terra-Cotta.*"

DWELLINGS. — Comstock's "*American Cottages.*" — EDS. AMERICAN ARCHITECT.]

*Standard and extremely desirable.

CONTINUOUS BRICK KILNS.

OMAHA, NEB., January 20, 1885.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — I am anxious to learn if any *continuous brick kiln*, so well received all over Europe, and in use there since about 1864, has ever been employed in the United States, and if so; *how* approved of by our brick manufacturers.

Any information concerning this subject, or addresses of men using these said kilns, you may be able to give, will be thankfully accepted.

Hoping to have the pleasure to hear from you at your earliest convenience. I remain, yours respectfully, H. ROHWER.

[WE believe you will find the information you seek in the *Scientific American Supplement*, Nos. 160 and 185. — EDS. AMERICAN ARCHITECT.]

COMBUSTIBLE CHURCHES.

February 9, 1885.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — When I called for plans and specifications of the interior construction of a church of which you lately gave an interesting design, my purpose was to determine whether or not when constructed it would be a stone screen protecting an inside cellular wooden structure from water, in case a fire should occur in the customary way by which churches are now being consumed at the rate of about one-and-a-half per week in this country.

To this, R. B., Jr., responds that I inquire for plans "for *fireproof* schools and churches, and that it is easier to make such plans than to get the public to pay the extra cost."

I made no such inquiry. I only wish to see some plans of churches in which the same materials now used in making the excellent examples of combustible architecture may be otherwise disposed in such a way that a prudent underwriter might bet that they would *not* be completely destroyed by a small fire starting in the cellar, at as low a rate as it would generally be safe to bet that they *will* be utterly ruined from the smallest spark of fire dropped anywhere. E. A.

NOTES AND CLIPPINGS.

A SINGULAR CAUSE OF FIRE. — A small fire recently, in the St. Andrew's tenement, in a suburb of Boston, was caused in the following remarkable manner: An unusually hot fire in a patent parlor grate stove melted the solder securing the end piece of the ornamental brass rod which extends over the stove door. The piece immediately dropped off and the resin with which the rod was filled to prevent its denting ignited, ran out and set fire to the rug and curtains. Fortunately, the tenants were in the room at the time and extinguished the flames before any serious damage was done. Had it been in the dead of night, the result would undoubtedly have been a heavy loss of life and property. When there is so much fireproof material with which such rods could be filled, it must be due to intense stupidity that such an incendiary article as resin should be used. — *The Weekly Underwriter.*

A SANITARY CANAL FOR PARIS. — A project for a sanitary canal between Paris and the sea has been brought before the French Academy of Sciences by M. A. Dumont. The author points out that although the experiments of the City of Paris engineers at Gennevilliers appear to show that irrigation is the best means of disposing of the drainage of Paris, it is very doubtful if the space available at the forest of St. Germain is sufficient for the purpose, the drainage waters of Paris amounting to over 100,000,000 cubic metres per annum. Hence his idea of a canal to the sea to carry off the daily accumulation of 300,000 cubic metres of sewage. The starting-point of the proposed canal would be a covered reservoir at Herblay on the right bank of the Seine. From Herblay to a point on the coast between Dieppe and Tréport the canal would be 152 kilometres long, and covered throughout. The route of this canal would be by Eragny (crossing the Oise by a viaduct 25 metres high), thence to Serifontaine, Neufchâtel, St. Martin, and Gréges, to the Channel at a point 7 kilometres from Dieppe, and 17 kilometres from Tréport, where the current and trend of the coast would prevent any nuisance to these ports. Pumping would be resorted to at some points; but at the outfall, motive power could be obtained from the waters. A more important point in connection with the new scheme is that it would admit of the water being utilized for irrigation purposes *en route*, and during two-thirds of the year probably all the sewage would be thus disposed of. The estimated cost of the canal is sixty millions, and the expense of pumping would be largely covered by the sale of the waters along the track of the canal. The section of the latter would permit the flow of at least 500,000 cubic metres per diem. The scheme is well worthy the consideration of other crowded centres, since it unites the utilization of the sewage at separate districts along a considerable length of country, together with the advantages of a covered drain. It is, in fact, virtually a means of distributing sewage waters for irrigation purposes. For Paris the work would be highly beneficial on the score of health. — *Engineering.*

SLATE DEBRIS AND ITS UTILIZATION. — An ordinary meeting of the Civil and Mechanical Engineers' Society was held on Wednesday evening, the seventeenth of December, the President, Mr. Thomas Cole, A. M. I. C. E., in the chair, when a paper, illustrated with experiments, was delivered by Dr. G. Selkirk Jones, F. C. S., upon "Slate Débris and its Utilization." The author, after describing the composition and geological formation of clay slate, called attention to the various substances which in the laboratory he had obtained from waste slate, or débris, such as crystallized alum, so much in demand as a mordant in calico-printing and other processes; secondly, a new filtering agent for sugar refining and water purification, this substance containing a large percentage of carbon; thirdly, a substance which he named "Argilline," to be used in conjunction with lime for the chemical precipitation of lime. The author then showed an aluminate of peculiar composition, possessing good detergent properties, and which, he said, had already found much favor among wool and silk scourers, its efficacy as a detergent being due, firstly, to its powers as a remover of grease, etc. and, secondly, on account of its harmless action upon those delicate fabrics, the curl of the wool being uninjured, and the silk freed from the so-called gum without damaging the fibre. The slate débris was next shown in its prepared condition for the manufacture of French chalk, pigments, fullers' earth, earthenware, cement, and concrete. Another feature of slate débris utilization was also pointed out, viz., the manufacture of good and substantial bricks, sanitary and other tubes, tiles, etc. The author showed by experiment the cleansing of dirty wool, selecting the worst specimen he could obtain. He also precipitated the solid matter from a gallon of very offensive sewage-water, leaving the effluent bright and comparatively pure. In speaking upon the question of sewage purification, and of our possible visitor, the cholera, the author remarked that this was not a question so much of cost as of national importance. From a sanitary and hygienic point of view, what, he argued, was £5,000 or even £10,000 a year outlay compared with the incalculable advantages of pure drinking-water and the prevention of zymotic diseases among the community? The exclusive rights in respect to the foregoing have been secured at home and abroad? — *The Builder.*

BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]

BUILDING PATENTS.

[Printed specifications of any patents here mentioned, together with full detail illustrations, may be obtained of the Commissioner of Patents, at Washington, for twenty-five cents.]

311,487. VISE. — Thomas G. Hall, Brooklyn, N. Y.
311,489. ELEVATOR. — Charles W. Hays, Orange, N. J.
311,502. HOT-AIR FURNACE. — Abram Mann, Kansas City, Mo.
311,504. ELEVATOR. — Volney W. Mason, Providence, R. I.
311,509. FRESCO-WORK. — Ettore S. Miragoli, St. Louis, Mo.
311,510. AWNING FOR WINDOWS. — Matthew Moneyment, Philadelphia, Pa.
311,518. STRAP-HINGE.—Bartlett D. Palmer, What Cheer, Io,
311,557. DRYING APPARATUS FOR BRICK AND TILE KILNS.—Chester L. Ames, Cabery, Ill.
311,567. DEAFENING OR FILLING FOR WALLS. — Leonard E. Clawdon, San Francisco, Cal.
311,569. COMPOSITE ROOFING. — William Coultas, Stockton-on-Tees, County of Durham, Eng.
311,575. REVERSIBLE LATCH. — Daniel H. Fitzgerald, Reading, Pa.
311,578. SCAFFOLDING.—John T. Haskell, Norwalk, Ohio.
311,587. APPARATUS FOR FLUSHING THE BOWLS OF WATER-CLOSETS. — Thomas Keyworth, Brooklyn, N. Y.
311,599. VALVE MECHANISM FOR WATER-CLOSET CISTERNS.—George R. Moore, Philadelphia, Pa.
311,604. DOOR-CHECK.—Levi Pentz, Canton, O.
311,606. STEAM-SUPPLY SYSTEM. — Nathaniel W. Pratt, Brooklyn, N. Y.
311,608. FLOORING-CLAMP.—Alonzo Redman, Chicopee, Mass.
311,637. LATCH AND LOCK COMBINED. — Frederick J. Biggs, London, Eng.
311,649. AUTOMATIC SAFETY-BRAKE FOR ELEVATORS AND HOISTS. — Dominique Crespin de la Jeanniere, Paris, France.
311,656. APPARATUS FOR LAYING SUBMARINE TUNNELS AND TUBES. — Hayden H. Hall, New Hamburg, N. Y.
311,660. TILE-KILN. — Gregory Jennings, West Cairo, O.
311,661. FIRE-ESCAPE. — Charles W. Joynt, Makanda, Ill.
311,666. LATH. — James Morrison, Jr., New York, N. Y.
311,669. FIRE-ESCAPE.— Robert H. Nichols, Aylesford, Nova Scotia, Can.
311,674. ASH-CHUTE. — Henry Pashley, Brooklyn, N. Y.
311,676. ROOFING-BRACKET.— Edwin Prescott, Arlington, Mass.
311,677. CONSTRUCTION OF BUILDINGS.— Elisha L. Randall, Durand, Wis.
311,684. ELEVATOR-HATCHWAY COVER. — William H. Skerritt, Jersey City, N. J.
311,694. APPARATUS FOR THE MANUFACTURE OF ARTIFICIAL STONE. — C. Irvine Walker, Charleston, S. C.
311,697. DOOR-HANGER.— Warren E. Warner, Syracuse, N. Y.
311,729. ASBESTOS PACKING. — John Dewrance, Lambeth, County of Surrey, Eng.
311,741. MACHINE FOR SAWING STONE. — Paulin Gay, Paris, France.
311,742. PNEUMATIC DOOR-CHECK.— Willim Gilfillan, New Haven, Conn.
311,752. FIRE-HOSE CASE OR BOX. — John T. Hawkins, Taunton, Mass.
311,753. DOOR-KNOB ATTACHMENT. — Nathan Hawkes, Appleton, Me.
311,760. LOCKING DEVICE FOR SLIDING DOORS. — David Hoke, Altoona, Pa.
311,765. WINDOW-FASTENER. — George H. Kanmacher, Columbus, O.
311,783. ELEVATOR. — William F. Rau and Conrad Münch, Cincinnati, O.
311,784. SKYLIGHT.—Richard H. Reillé, New York, N. Y.
311,800. CALIPERS.—Charles H. Alapaw, St. Louis, Mo.
311,805. FIRE-ESCAPE. — Joseph H. Bowley, Marengo, Ill.
311,825. WEATHER-STRIP. — Solomon Funk, Spirit Lake, Io.
311,827. WINDOW-SCREEN. — Jay R. Graver, Lincoln, Neb.
311,836. DOOR STOP AND HOLDER.—Sidney W. Jay and Michael J. Garvey, Toledo, O.
311,845. HOT-AIR FURNACE. — Thos. Nugget, New York, N. Y.

SUMMARY OF THE WEEK.

Baltimore.

WAREHOUSE. — Chas. L. Carson, architect, has prepared plans for Solomon Frank, Esq., for a five-st'y brick and stone warehouse, 28′ x 94′, to be erected on West Baltimore St., near Eutaw St., and to cost, $30,000; S. H. & J. F. Adams, contractors.

DWELLINGS.—Geo. S. Brown, Esq., is to have built 17 three-st'y brick and Cheat River stone dwells., 16′ x 45′, and to cost, $3,500 each; com. cor. Harlem and Fulton Aves.; and 13 three-st'y brick dwells., 12′ x 30′, and to cost, $1,000; near alley in rear of above; from designs by Frank E. Davis, architect, Jackson Holland, builder.

BUILDING PERMITS. — Since our last report sixteen permits have been granted, the more important of which are the following: —

S. D. Price, 7 three-st'y brick buildings, n e cor. Chase and Barclay Sts.; and 5 three-st'y brick buildings, s s Chase St., w of McKim St.

J. M. Getz, 14 two-st'y brick buildings, w s Ensor St., bet. Biddle and Chase Sts.; and 6 two-st'y brick buildings, com. n w cor. Chase and Ensor St.

John E. Phillips, five-st'y brick warehouse, n s Pratt St., bet. Howard and Eutaw Sts.

J. E. Emerson, three-st'y brick building (square), n w cor. Gilmor St. and Lafayette Ave.

N. M. Rittenhouse, one-st'y brick building 40′ x 60′, s w cor. Covington St. and Fifth Lane.

George Zeller, three-st'y brick building, n w cor. Jefferson and Chapel Sts.

Mary A. Parks, 10 two-st'y brick buildings, s s Nanticoke St., w of Cross St.

Brooklyn.

BUILDING PERMITS.—*Greenpoint Ave.*, s s, 72′ w Manhattan Ave., one-st'y frame skating-rink, with gallery on one side, felt roof; cost, $7,500; owners, R. Hall Benton and Eugene Fisher; architects and builders, Randall & Miller.

Scholes St., s s, 100′ w Graham Ave., two-st'y brick stable and one-st'y brick engine-house; cost, $5,000; owner, Henry Kiefer; architect, J. Platte; builder, J. Rueger.

Rutledge St., s s, 100′ w Harrison Ave., 4 three-st'y brick flats, tin roofs, wooden cornices; cost, each, $7,000; owners and builders, Jacob Bossert and John Auer, Heyward St., near Harrison Ave ; architect, J. Platte.

North Twelfth St., at foot of street, two-st'y brick packing-box factory, tin roof, brick cornice; cost, $15,000; owner, Pratt M'f'g Co., on premises; architect, F. L. R. Swift; builder, not selected.

Fulton St., s e cor. Lafayette Ave., 5 four-st'y iron stores and tenements, tin roofs, cost, $50,000; owner, A. S. Robbins, 114 Sixth Ave.; architect and carpenter, Joseph Platt; masons, J. De Mott & Sons.

MacDougal St., n e cor. Ralph Ave., 2 three-st'y brick stores and dwells., tin roofs; cost, total, $14,000; owner, Edw. F. Holtz, on premises; architect, Th. Engelhardt; builders, A. Sutterline and P. Kunzweiler.

Central Ave., Nos. 71 *and* 73, cor. Melrose St., 2 three-st'y frame stores and dwells., tin roofs; cost, total, $9,000; owner, Leonhard Eppig, 58 Central Ave.; architect, Th. Engelhardt.

Halsey St., n s, 125′ e Reid Ave., 3 two-st'y brick dwells., tin roofs, wooden cornices; cost, each, $3,000; owners, Frederick and John Dhuy, 184 Chauncey St.; carpenter, John Dhuy.

Chicago.

BUILDING PERMITS. — J. Schlage, 2 two-st'y flats, 49-51 North May St.; cost, $7,000; architect and builder, S. M. Walden.

E. Batcheller, five-st'y factory, 42-44 West Monroe St.; cost, $35,000; architect, L. D. Cleveland; builder, N. Barton.

J. O. Boyle, two-st'y stable, 220-222 Illinois St.; cost, $3,000.

J. H. Cummings, two-st'y dwell., 515 Dearborn Ave. cost, $4,000.

F. R. Goss, two-st'y store and flats, 1115-1121 Harrison St.; cost, $6,000; architect, S. N. Philpot.

G. N. Hull, 2 two-st'y stores and flats, 337-339 South Western Ave.; cost, $5,000; architect, A. S. Sprague.

Geo. Heppish, 8 three-st'y dwells., 111-125 Sibley St.; cost, $30,000; architect and builder, Geo. Heppish.

Geo. Heppish, three-st'y store and flats, 517 Taylor St.; cost, $6,000.

C. A. Brecht, two-st'y dwell., 597 Chicago Ave.; cost, $4,000.

H. Schwinkendorf, three-st'y flats, 177 Tremont St.; cost, $4,000; architect, T. Reinhardt.

J. Enerson, three-st'y flats, 286 West Erie St.; cost, $4,000; builders, T. Tobiason & Co.

W. J. Anderson, 3 cottages, 480-486 Armitage St.; cost, $2,700.

W. C. Houston, two-st'y dwell., Belleview Ave.; cost, $3,500.

B. C. Chambers, 2 additional stories, 153-157 Dearborn St.; cost, $20,000; builder, E. Sturtevant.

J. Henry, three-st'y flats, 133 California Ave.; cost, $5,000; architect and builder, J. Henry.

Mrs. M. Irving, three-st'y flats, 247 Thirty-seventh St.; cost, $5,000; architect, Geo. McDonald.

A. Mueller, two-st'y store and dwell., 287 Clybourne Ave.; cost, $3,000.

Mrs. M. E. Sands, two-st'y dwells., 491-503 West Jackson St.; cost, $40,000.

G. D. Pease, three-st'y store and flats, 993 West Van Buren St.; cost, $4,500; architect, A. Smith; builder, A. Dressel.

New York.

First-class builders have their pencils finely pointed, for hardly any work is yet on the market. Speculative builders and owners of cheap tenements keep up the volume of projected buildings.

APARTMENT-HOUSE. — On the n e cor. of Lexington Ave. and Seventy-second St., a six-st'y apartment-house, 45′ x 98′, is to be built at a cost of $100,000, from plans of Mr. Selig Steinhardt,

HOSPITAL.—It is proposed to have an additional story built on the building of the Mount Sinai Hospital, on Lexington Ave. and Sixty-sixth St.

BUILDING PERMITS. — *East Ninth St., Nos.* 206 *and* 208, five-st'y brick and terra-cotta dwell., tin roof; cost, $32,000; owner, James Thompson, per E. R. Robinson, 150 Broadway; architect, G. B. Post.

Rivington St., n w cor. Norfolk St., 2 five-st'y brick tenements, tin roofs; total cost, $38,000; owner, Francis Keckeissen, 307 Fifth St.; architect, J. Kastner.

Norfolk St., No. 115, four-st'y brick stable, etc., tin roof; cost, $12,000; owner and architect, same as last.

Sixty-fourth St., n s, 175′ w Eleventh Ave., two-st'y brick factory, tin roof; cost, $12,000; owner, Henry Raabe, 235 West Fifty-third St.; architect, J. Brandt.

Allen St., No. 7, five-st'y brick tenement, tin roof. cost, $21,000; owner, Chas. Pfeiff, 17 Eldridge St.; architect, W. Graul.

One Hundred and Fortieth St., s s, 77′ e Willis Ave., three-st'y brick dwell., tin roof; cost, $5,500; owner, A. F. Nickel, 298 Willis Ave.; architects, Ebeling & Hennricke.

Madison Ave., e s, 350′ n One Hundred and Seventy-ninth St., three-st'y frame dwell., tin roof; cost, $4,300; owner, Margaret L. Haughey, 1436 Lexington Ave.; architect and builder, Robert H. Taylor.

Melrose Ave., s e cor. One Hundred and Fifty-fifth St., three-st'y frame dwell., tin roof; cost, $4,500; owner, Wm. Conrad, 611 East One Hundred and Fifty-fifth St.; architect, Chas. Volz; builder, Wm. Kusche.

Sixty-fifth St., n s, 250′ w Eighth Ave., 5 five-st'y brick flats, tin roofs; cost, each, $30,000; owner, Jas. Philp, Fifty-first St. and Broadway; architects, Thorn & Wilson.

Stanton St., No. 233, five-st'y brick tenement and store, tin roof; cost, $15,000; owner, Frank A. Seitz, 315 East Forty-second St.; architect, Jos. M. Dunn.

West Thirty-fifth St., No. 256, five-st'y brick tenement, tin roof; cost, $16,000; owner, Lawrence Curnan, 260 West Thirty-ninth St.; architect, Jos. M. Dunn.

Morris Ave., n w cor. One Hundred and Forty-ninth St., 4 four-st'y brick tenements and stores, tin roofs; owner, Mrs. Margaret A. Johnson, 2200 First Ave.; architect, Andrew Spence.

Fifth Ave., No. 793, two-st'y brick store and greenhouse in rear; cost, $4,000; lessees, Sarah I. Burnham and W. W. Hall, 245 West One Hundred and Twenty-ninth St.; architect, C. Abbott French.

First Ave., w s, 75′ s Twenty-third St., four-st'y brick workshop, tin roof; cost, $4,000; owner, John Kreeb, 471 First Ave.; architects, Thom & Wilson.

Tenth Ave., 10′ s cor. Fifty-first St., five-st'y brick tenements and stores, tin roofs; cost, $15,000; owner, Thurlow W. Coulter, 751 Tenth Ave.; architects, A. B. Ogden & Co.

One Hundred and Fourth St., s s, 80′ w Third Ave., five-st'y brick flat, tin roof; cost, $22,000; owner, Mary E. Bailey, 186 East One Hundred and Fourth St.; architect, Chas. Baxter; carpenter, —— Baxter, 108 East One Hundred and Twenty-fifth St.

Bergen Ave., s w cor. Rose St., 2 three-st'y frame tenements, and a two-st'y frame stable on rear of lot, tin roofs; cost, total, $12,000; owner, Henry Ahr, 681 North Third Ave.; architect, Theo. E. Thompson.

Ninth Ave., n e cor. Forty-fifth St., 4 five-st'y brick tenements and stores, tin roofs; cost, three $18,000 each, and one $26,000; owner, Wm. Rankin, 332 West Forty-seventh St.; architect, E. Louis Ungrich.

Second Ave., e s, 100′ n Sixty-third St., five-st'y brick workshop, gravel roof; cost, $17,000; owner and builder, Geo. B. Christman, 331 East Fifty-fifth St.; architect, Wm. Graul.

Norfolk St., Nos. 72-76, 3 five-st'y brick tenements, tin roofs; cost, each, $21,000; owners, H. & S. J. Silberman, 79 Canal St.; architect, Wm. Graul.

Pier, foot of East Twenty-third St., frame and iron ferry-house, slate and tin roof; cost, $25,000; owner, People's Ferry Co., by Jos. J. O'Donohue, 44 West Fifty-fourth St.

Walton Ave., w s, 250′ n One Hundred and Fiftieth St., two-st'y frame dwell., tin roof; cost, $4,000; owners, Stephen F. Stafford and wife, 605 Walton Ave.; builder, Stephen F. Stafford.

Ninety-fifth St., s s, 199′ 8″ and 224′ w Ninth Ave., 2 three-st'y brick dwells., slate roofs; cost, each, $6,000; owners, Edwin and Chas. Fraser, 13 St. Luke's Pl.; architect and carpenter, Louis Falk; mason, James McGarity.

ALTERATIONS. — *Gold St., No.* 36, repair damage by fire; cost, $3,500; owner, W. E. Dodge, 262 Madison Ave., and D. W. James, Park Ave. and Thirty-ninth St.; architect and builder, E. Smith.

Allen St., No. 5, add one st'y; cost, $3,000; owner, Charles Pfeiff, 17 Eldridge St.; architect, W. Graul.

West Twelfth St., Nos. 351 *and* 353, replace second and third floors, also repair brick walls; cost, $4,000; owner, Peter C. Ritchie, exr., 351 West Twelfth St.; builder, John L. Hamilton.

Eighth Ave., Nos. 512 *and* 514, new store-fronts; cost, $3,500; owner, Courtland Palmer, Trustee, 117 East Twenty-first St.; builder, A. Gibbins.

West Fifteenth St., No. 318, three-st'y brick extension, tin roof; cost, $3,500; owner, Leopold Aman, on premises; architect, John J. Tucker; builder, Wm. A. Vanauhoff.

Second Ave., e s, Ninety-sixth to Ninety-seventh St., three-st'y brick extension on rear, gravel roof; cost, $75,000; owner, Second Ave. R. R. Co., on premises; architect, John G. Prague.

Broadway, s e cor. Liberty St., internal alterations, such as new stairs, two passenger-elevators, new boilers, new plumbing, etc., fix up for offices; cost, $50,000; owner, Mutual Life Ins. Co., Nassau; Cedar and Liberty Sts.

Philadelphia.

FACTORY. — At Tenth St., cor. Filbert St.; Kisler & Oram, contractors, will erect from plans drawn by Collins and Autenreit & Co., architects; six-st'y building for manufacturing purposes, 70′ x 100′, the material used will be bricks, Richmond granite and ornamental terra-cotta, the Tenth St. front will be of glass, and so arranged in the first st'y as to make 3 stores if necessary; there will also be a boiler-house, two-st'y, 20′ x 60′, located in rear on Rementer St.

BUILDING PERMITS.—*Christian St., No.* 1503, two-st'y shop, 18′ x 29′; Thos. Smith, owner.

North St., w of Seventy-first St., three-st'y dwell.; M. Boyle, contractor.

Oxford St., No. 2514, addition to stable, 46′ x 51′; Harry A. Bears, owner.

Weikel St., n w cor. of Ontario St., three-st'y dwell., 16′ x 45′. L. Schwab, contractor.

Kensington Ave., n w cor. Cumberland St., one-st'y skating-rink, 40′ x 80′; C. I. Schroeder, owner.

Rover St., above Indiana Ave., two-st'y dwell., 16′ x 27′; Dickson & Bro., contractors.

Norris St., e of Sepovia St., addition to building, 15′ x 34′; Wm. H. Grisler, contractor.

North Ninth St., No. 41, back building, 16′ x 36′; Rea & Riley, contractors.

St. Louis.

BUILDING PERMITS.—Thirty-seven permits have been issued since our last report seven of which are for unimportant frame houses. Of the rest, those worth $2,500 and over are as follows: —

Emma Lingenfelder, 3 adjacent two-st'y tenements; cost, $11,000; M. Frederici, builder.

F. Reinor, two-st'y store and dwell.; cost, $3,300; H. Ellermann, builder.

Chas. Kurz, 4 adjacent two-st'y tenements; cost, $6,500; Thos. Gugerty, builder.

Thorn & Fullertin, 3 adjacent two-st'y dwells.; cost, $7,000; B Weber & Co., builders.

Mrs. S. Doyle, 3 adjacent two-st'y dwells.; cost, $8,000; I. S. Taylor, architect; Jno. McMahon, builder.

Globe Panorama Co., one-st'y brick panorama; cost, $45,000. I. S. Taylor, architect; Goesse & Remmers, builders.

Henry Hitchcock, two-st'y store and dwell.; cost, $3,000; sub-let.

Wm. J. Nolker, 3 adjacent two-st'y dwells.; cost, $11,000; E. Jungenfeld, architect; Bothe & Rattermann, builders.

Wm. J. Nolker, 2 adjacent two-st'y dwells.; cost, $7,000; E. Jungenfeld, architect; Bothe & Rattermann, builders.

Joseph Specht, two-st'y brick dwell.; cost, $35,000; Bothe & Rattermann, builders.

Joseph Specht, two-st'y stable, cost, $4,000; Bothe & Rattermann, builders.

Gerst M'f'g Co., two-st'y brick factory; cost, $3,000; Bothe & Rattermann, builders.

Wm. Seaver, two-st'y brick restaurant; cost, $4,000; A. Beinke & Co., architects; C. H. Poertner, builder.

Henry Tielkemeyer, 2 adjacent two-st'y tenements; cost, $3,200; A. Beinke & Co., architects; sub-let.

Mrs. B. Roth, 2 adjacent two-st'y tenements; cost, $4,000; E. W. Black, builder.

A. Vosse, two-st'y tenement; cost, $3,000; A. Vosse, builder.

Mrs. W. Smith, 3 adjacent two-st'y dwell and tenements; cost, $3,000; Is. Smith, builder.

Washington, D. C.

BUILDING PERMITS.—Since last reports the following have been issued: —

O St., between Twentieth and Twenty first Sts, n w, 2 three-st'y brick dwells., for Glenn Brown, owner and architect; cost, $9,000.

E St., between Sixth and Seventh Sts., n w, one-st'y brick skating-rink, 74′ x 159′; cost, $10,000; E. C. Gilbert, owner.

K St., between Twenty-sixth St. and Twenty-seventh St., n w, 3 three-st'y brick dwells., for C. Henrich; cost, $7,000; C. A. Didden, architect.

Fourth St., between E and F Sts., n w, three-st'y brick dwell., for Mrs. I. Johnson; cost, $5,000; Lewis Stutz, architect.

Thirteenth St., between M and N Sts., n w, 3 three-st'y brick dwells., for Robert Portner; cost, $14,000; C. A. Didden, architect.

Eighth St., between S and T Sts., n w, two-st'y brick dwell., for R. L. Parry; cost, $3,800.

Nineteenth St., between Q and R Sts., n w, three-st'y brick dwell., for W. T. Okie; cost, $8,000; C. C. Martin, architect and builder.

Massachusetts Ave., s s, between Twenty-first and Twenty-second Sts., n w, dwell., 52′ x 61′, four-st'y and basement, for Mrs. Anastasia Patten, of California; cost, $90,000; Col. R. I. Fleming, architect and builder.

General Notes.

BEATRICE, NEB. — Bank and office-building for Thos. Yule; cost, $10,000; Ellis & Turner, architects, Marshalltown, Iowa.

ELLSWORTH, ME.—The people of Hancock County are to vote in March on the question of erecting a new jail, a court-house, and a registry of deeds. It is believed that the expenditure of $30,000 or $40,000 will so remodel the present structures that they will meet the needs of the county, and this course will probably be adopted.

LOCKPORT, N. Y. — About 500 persons, representing different towns in Niagara County, crowded the court-house February 7, and protested against the passage of a bill, now in the State Senate, authorizing the building of a new court-house and city-hall in Lockport.

LOS ANGELES, CAL. — California will build a State Insane Asylum at Los Angeles.

NATICK, MASS. — Takawambeit Lodge, I. O. O. F., is draughting plans for a large brick structure, to be built on its lately purchased site on South Main St.

PEORIA, ILL. — House for W. G. Sloan; cost, $20,000; Ellis & Turner, architects, Marshalltown, Iowa.

RAYMOND, N. H. — The town of Raymond has appropriated $3,500 for the erection of a building to be occupied as a shoe factory by F. M. Hoyt.

RED OAK, IOWA.—High-school building; cost, $15,000; Ellis & Turner, architects, Marshalltown, Iowa.

Also, Ward school-house; cost, $10,000.

SOUTH ORANGE, N. J. — Miss Caldwell's gift toward the establishment of a Catholic university has been increased, and it is said that arrangements have been completed for a new and magnificent institution, to be located within fifteen or twenty miles of New York. It is said that the site of Seton Hall College, South Orange, will be selected on account of its admirable location and its accessibility.

SWEETWATER, EAST TENN. — We are expecting to build a new church within two years. James A. Wallace, Pastor Pres. Church.

Bids and Contracts.

BROOKLYN, N. Y.—The lowest bid for concreting the foundation of the new Federal Building is for $5,471, made by John Cox, of Chicago. Of the eight other bids, the highest was for $15,937.

BUFFALO, N. Y.—The following is a synopsis of the bids for marble wainscoting and mantels at the custom-house: —

Burlington Manufacturing Company, Chicago, Ill., $10,288.

Davidson & Sons, Chicago, Ill., and Milwaukee, Wis., $9,446.

Lautz & Co., 861 Main St., Buffalo, N. Y., $12,627.84.

Pickel Stone and Marble Company, St. Louis, Mo., $11,107.

Charles E. Hall & Co., 69 Charlestown St., Boston, Mass., $13,457.

E. Fritsch, 515 West Twentieth St., New York, $8,538.

R. C. Fisher, New York City, $14,581.54.

CINCINNATI, O. — The following were the bids on the carpenter-work of the new court-house:—

James Gurren, $50,000; H. E. Holtzinger, $46,336; Henry Behrens, $45,265; Harwood & Son, $40,628; J. F. Nieber, $39,475; Robert Thoms, $58,900; Griffith & Son, $35,980; Jos. Cotteral & Co., $28,937.50.

KANSAS CITY, MO. — The following is a synopsis of the bids for marble wainscoting and mantels for the custom-house: —

Burlington Manufacturing Company, Michigan Ave. and Van Buren St., Chicago, Ill., $16,608.

Davidson & Sons, North Market St., Chicago, Ill., $16,484.

Pickel Stone and Marble Company, 1851 Broadway Street, St. Louis, Mo., $14,940.

E. Fritsch, New York City, $17,426.75.

R. C. Fisher, New York City, $17,896.60.

Vermont Marble Company, Centre Rutland, Vt., $16,113.75.

MEMPHIS, TENN.—The following is a synopsis of the bids for marble wainscoting and mantels for the custom-house: —

Burlington Manufacturing Company, Chicago, Ill., $5,783.

Davidson & Sons, Chicago and Milwaukee, $6,156.

Pickel Stone and Marble Company, St. Louis, Mo., $6,370.

E. Fritsch, New York City, $6,734.

R. C. Fisher, New York City, $6,305.

PEORIA, ILL.—The following is a synopsis of the bids for marble wainscoting, mantels and floor-tiling for court-house: —

King & Bull, Peoria, Ill., $14,034.37½.

Burlington Manufacturing Company, Chicago, Ill., $11,435.

Davidson & Sons, Chicago and Milwaukee, $10,906.

Peoria Steam Marble Works, Peoria, Ill., $10,244.99.

Pickel Stone and Marble Company, St. Louis, Mo., $11,758.

E. Fritsch, New York City, $9,190.

R. C. Fisher, New York City, $11,012.

TOLEDO, O.—The following is a synopsis of the bids for marble wainscoting, mantels and floor tiling: —

Burlington Manufacturing Company, Chicago, Ill., $15,939.

Davidson & Sons, Chicago and Milwaukee, $16,899.

Lautz & Co., Buffalo, N. Y., $18,332.91.

Pickel Stone and Marble Company, St. Louis, Mo., $17,067.

R. C. Fisher, 97 East Houston St., New York, $18,061.85.

Vermont Marble Company, Centre Rutland, Vt., $13,267.

PROPOSALS.

SEA-WALL. [At New York, N. Y.]

Sealed proposals will be received at the Office of the Department of Health, No. 301 Mott St., **until February 17, 1885,** for extension of sea-wall on North Brother Island. For full information see *City Record*, for sale at No. 2, City Hall. 477

WATER-CLOSET APPARATUS FOR PUBLIC BUILDINGS.

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., February 10, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 3d day of March, 1885,** for furnishing and delivering properly boxed, free on board cars, water-closet apparatus, that may be required for public buildings during the balance of the present and the next fiscal year ending June 30, 1886, in accordance with specification, copies of which and any additional information may be had at this office.

Bids must be accompanied by a certified check, for $500, and those received after the time of opening will not be considered. M. E. BELL,
479 Supervising Architect.

COURT-HOUSE ALTERATIONS. [At Preston, Minn.]

PRESTON, January 9, 1885.

The County Commissioners of the County of Fillmore, in the State of Minnesota, will receive sealed proposals **until the 25th day of March, 1885, at 12 o'clock,** M., at the office of the county auditor, in the village of Preston, said county, for the remodeling of the county court-house in said village, and the building of 2 two-st'y brick additions thereto, and iron vaults therein, and the furnishing all materials, in accordance with the plans and specifications therefor on file in the office of said auditor, which can also be seen at the office of Mayberry & Son, architects, Winona, Minnesota.

No bids will be received except for the whole building complete as specified.

The successful bidder will be required to give a sufficient bond with sureties, within a reasonable time to be fixed by said commissioners, in the sum of $15,000, to be approved by said commissioners, conditioned upon the faithful performance of his contract.

Each bid must be accompanied by a sufficient bond with sureties, or a duly certified check payable to said county in a sum of at least five per cent of such bid, conditioned upon the giving the bond above specified within the time so fixed, provided such bid should be accepted. The work will cost several thousand dollars, and must be completed on or before the first day of November, 1885. Right reserved to reject any or all bids. J. G. MINER,
Chairman Board of County Commissioners.
Attest: G. A. HAYES, County Auditor.
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PROPOSALS.

SMOKE-PREVENTING APPARATUS. [At Chicago, Ill.]

Sealed proposals will be received at the office of the Committee Clerk of the Board of County Commissioners, Room 29, Court-House, **up to 2 P. M., Friday, February 20, 1885,** for the application of the six (6) steam-boilers in the basement of the court-house; all proposals to be submitted in accordance with the specifications now on file at this office; the right to reject any or all bids is reserved.

Proposals should be addressed to the undersigned, and indorsed "Proposals for applying Smoke-Preventing Apparatus." JAMES C. STRAIN,
Committee Clerk, Board of County Commissioners,
Room 29, Court-House. 477

PAINTING, POLISHING AND GLAZING. [At Kansas City, Mo.]

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., February 10, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 10th day of March, 1885,** for all the painting, polishing and glazing required for the custom-house, etc., building at Kansas City, Mo., in accordance with specification, copies of which and any additional information may be had on application at this office, or the office of the superintendent.

Bids must be accompanied by a certified check, and those received after the time of opening will not be considered. M. E. BELL,
478 Supervising Architect.

JAIL. [At Scranton, Pa.]

OFFICE OF THE COMMISSIONERS OF LACKAWANNA COUNTY,
SCRANTON, PA., January 24, 1885.

Sealed proposals for the erection and completion of a county jail for Lackawanna County, to be located on the corner of Washington Ave. and New York St., in the city of Scranton, Pa., will be received by the undersigned Commissioners of said county, at their office **until Thursday, February 26, 1885, at 10 o'clock in the forenoon.** Plans and specifications will be on file at the court-house in the city of Scranton, on and after Tuesday, January 27, 1885. The builder to whom the contract shall be awarded will be required to enter into bonds with at least two approved sureties for the sum of $20,000, for the faithful performance of the contract. Work to be commenced within thirty days after the awarding of the contract, and to be finished on or before April 1, 1887.

The Commissioners reserve the right to reject any or all bids. WM. FRANZ,
H. L. HALSTEAD,
WM. J. BURKE,
County Commissioners.
Attest: D. W. POWELL, Clerk. 478

STONE AND BRICK WORK, ETC. [At Erie, Pa.]

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., January 27, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 28th day of February, 1885,** for furnishing and setting all the stone and brick work for the superstructure of the court-house, post-office, etc., at Erie, Pa., in accordance with specifications and drawings, copies of which may be seen and any additional information obtained at this office or the office of the local superintendent of the building.

Bids must be accompanied by a certified check, and those received after the time of opening will not be considered. M. E. BELL,
477 Supervising Architect.

IRON-WORK. [At Great Kanawha River, W. Va.]

U. S. ENGINEER OFFICE, 378 ST. PAUL ST.,
BALTIMORE, MD., January 24, 1885.

Proposals for the iron-work of the pass of a movable dam on the Great Kanawha River, West Virginia, four miles below Charleston, embracing about 130,000 pounds of wrought, and 97,000 pounds of cast-iron, will be received at the U. S. Engineer Office, Charleston, Kanawha County, West Virginia, **until noon of February 14, 1885,** and opened immediately thereafter.

Specifications can be had upon application to Mr. A. M. Scott, Assistant Engineer at Charleston. Drawings will be exhibited and all necessary information given at the Charleston office.

WM. P. CRAIGHILL,
477 Lt.-Col. of Eng'rs, U. S. Army.

COURT-HOUSE. [At Farmington, Me.]

January 26, 1885.

Sealed proposals will be received at the Clerk of Courts Office, Farmington, Me., **until 12 o'clock,** M., **Tuesday, February 17, 1885,** for furnishing the materials and erecting a court-house for Franklin County, at Farmington, Me.

Plans and specifications may be examined and all information obtained at the Clerk's office in Farmington and at the office of G. M. Coombs, architect, Lewiston, Me.

Proposals will be received for the whole or a part of the work and materials.

The right is reserved to reject any or all bids.
F. W. PATTERSON,
ISAIAH CHICK,
477 S. K. WELLMAN, } County Commissioners.

COURT-HOUSE. [At Clarinda, Io.]

CLARINDA, IO., January 9, 1885.

Sealed Proposals for building a court-house at Clarinda, Page County, Io., will be received at my office **until 12 o'clock, noon, Wednesday, February 18th, 1885.** Plans and specifications will be on file at the court-house in Clarinda, on and after February 1, and may be seen prior to that time at the office of Foster & Liebbe, Architects, Des Moines Io.

The right is reserved to reject any or all bids.

By order of the Board of Supervisors.
477 R. H. LYMER, Auditor.